



West End Hub Framework Plan

**Exploring Opportunities to Grow West End
as the Southwest Hub of Atlanta's Core**

**May 2014
Georgia Tech
City & Regional Planning Studio
Mike Dobbins**

Christopher Allen

Isaac Asher

Bradley Calvert

Ben Chambers

Nilesh Deshpande

Jonathan Law

Charlene Mingus

Audrey Plummer

Maria Sotnikova

Brian Thomas



Acknowledgements

The students of the CP 6052 Planning Studio would like to thank the following people for their assistance and valuable insight, which helped form the West End Hub Framework Plan:

Amy Goodwin

APD Solutions, Inc.

Atlanta Housing Authority

Atlanta University Center

Council Member Cleta Winslow

Doug Young

Integral Consulting

Jared Lombard

Jeb Dobbins

Jonathan Lewis

Karl Barnes

Kay Wallace

MARTA

Prof. Dan Immergluck

Steve Lewandowski

Stosh Kozlowski, City of Atlanta Dept. of Planning & Community
Development

The Ford Foundation

West End Community Business Center, Inc.

West End Community Improvement District Workgroup

West End Merchant's Coalition

West End Neighborhood Association

GEORGIA INJURY CENTERS
BACK PAIN / AUTO ACCIDENTS
404-758-5515

 Little Caesars

WIG CITY

RAC Rent A Car



Table of Contents

Introduction.....	7
Historical Significance.....	10
Transportation.....	17
Environment Brownfields Greenspaces.....	29
Housing and Community Development.....	37
Economic Redevelopment and Revitalization of Business District.....	45
Implementation Schedule.....	69
Appendix.....	72
Detailed Transportation Analysis.....	74
Detailed Economic Development & Business District Revitalization Analysis.....	88
Summary of Potential Stakeholders.....	108
References.....	111

Activity Centers near West End

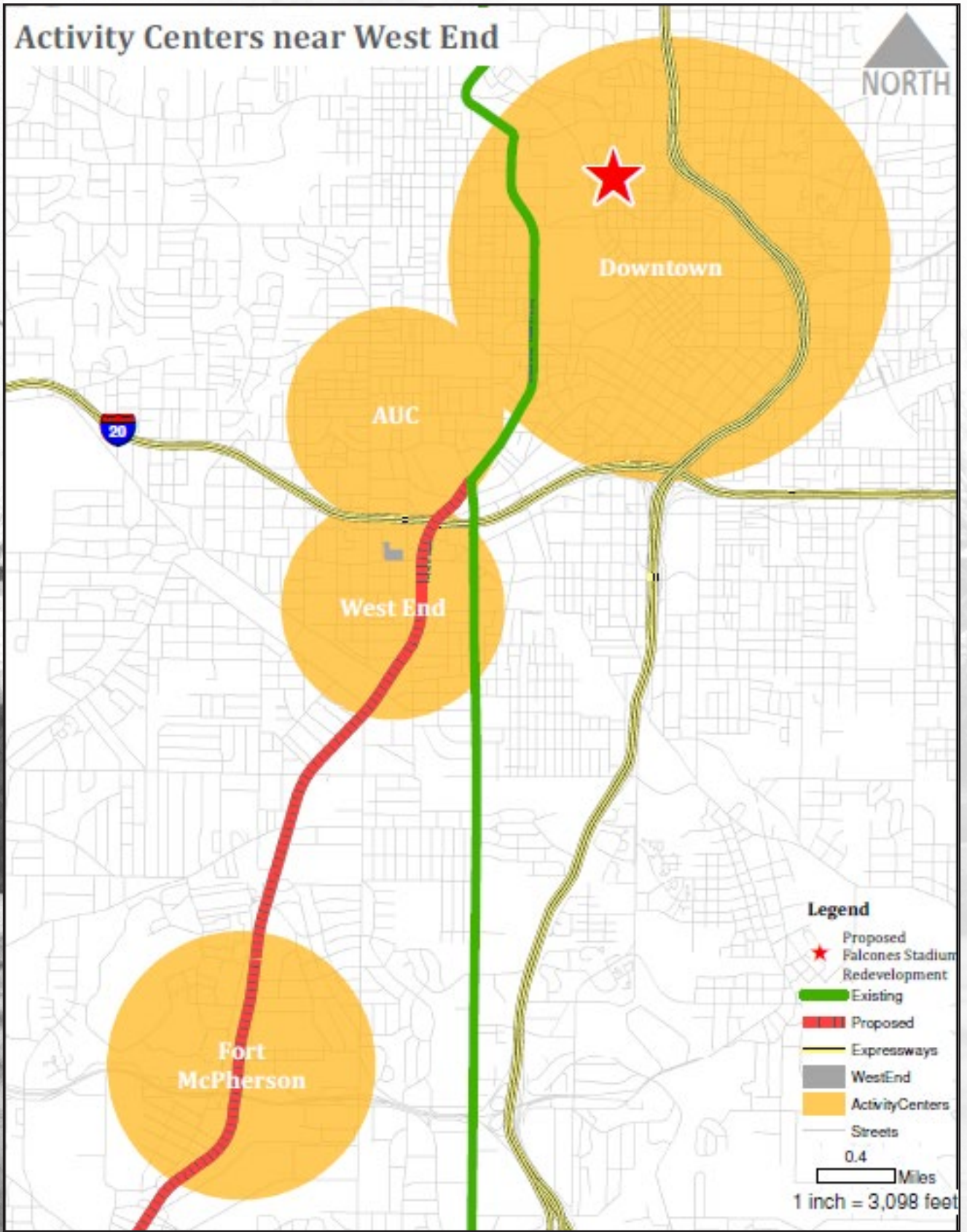


Figure 1: Economic Activity Centers near West End

Introduction

Master's Degree students in the City and Regional Planning program at Georgia Tech generated this report in the spring semester of 2014. Their purpose was to investigate the following research question: How can the economic potential of the West End to raise quality of life for its citizens be fully realized by improving transportation, land use, and the environment in the study area?

The work picked up from earlier studios that framed issues and made proposals that have begun to influence the policies and priorities for citizen groups, private sector interests, and government agencies. The first of these, www.northsidedrvision.gatech.edu, dealt with the Northside Drive corridor from I-75 to the West End. Its findings suggested that this corridor, long a dismal, utilitarian roadway, should be transformed into a grand transit boulevard, a gateway to the many strong institutions that line it and presently present a "back alley" character. The study further identified and analyzed the racial and class divide that Northside Drive has represented for decades. It suggested ways to replace the barrier with a seam, connecting low wealth neighborhoods to the west with the jobs and amenities of Downtown and Midtown to the east, both physically and programmatically. Finally, it identified West End as the logical terminus of the Northside corridor and suggested ways to realign the southern leg of Northside Drive to accomplish that goal. In that larger context, West End becomes the southwest hub of the Midtown/ Downtown core of the City, where most of its jobs, institutions, hospitality facilities, and cultural, entertainment, and sports facilities are concentrated.

The next studio, in the fall of 2013, focused on the midpoint of the corridor, the crossroads of Northside with Martin Luther King, Jr. Drive, the principle travel corridor for neighborhoods to the west of Downtown. The studio paid special attention to the development of a new, 1.2

billion dollar stadium for the Atlanta Falcons, replacing their current home next door. The principal issues picked up on the Northside divide between rich and poor, white and black, and explored ways in which the massive new investment might benefit the neighborhoods immediately impacted. Through considerable involvement with the neighborhoods and the Atlanta University Center (AUC), the students sought to support those groups' initiatives with planning analyses and findings that could add to the pressure on the City and the Falcons to do the right thing. These included suggesting ways to improve east-west connectivity, to develop job training and employment programs for local residents, to develop procurement programs that utilized local businesses, to improve travel and utility infrastructure, and to honor the national significance of the neighborhoods' history and culture. Related to West End, the AUC, the largest concentration of historically black colleges and universities in the country, became a critical focal point, the fulcrum through which Downtown and the West End connect. And the realignment of Northside Drive underscores that relationship as the frontage travel way for both AUC and the West End, along the way providing improved access between I-20 and Downtown.

Using these works, as well as supporting data and past studies from the City, the Region, and the State, this studio explored the implications, prospects, and opportunities for West End. Through successions of meetings with neighborhood and business leaders, private sector interests, and government agencies, students prepared a framework plan that should help guide local leadership to take best advantage of the opportunities before them. The framework suggests several key features:

- Establishing Lee Street as the key connection between the AUC, spanning the campus over I-20, to the West End business

district and the MARTA rail and bus station by providing an attractive tree-lined, well lit, pedestrian environment that will then extend south to Fort McPherson and East Point

- Reworking the AUC shuttle system to give students, faculty and staff direct and unified access to the three MARTA stations that serve their populations
- Over time, establishing the framework provided by Lee, Ralph David Abernathy (RDA), Lowery, and Oak Streets as the vital core of the district, including incremental development and redevelopment that would modify that “superblock” into more pedestrian-friendly subsets
- Amplifying the already strong retail base with AUC-linked incubator, research, and other medically based activities as well as providing some level of staff and faculty housing in the broader core area
- Realigning Northside Drive so that it flows directly into West Whitehall Street, thus overcoming the barriers of the CSX and NS rail lines, providing better access to a more efficient and less disruptive I-20 ramping system, as well as improved access to AUC, Castleberry Hill and Downtown.

Together, these moves will underscore that West End is already a transit oriented development (TOD), strengthening the growing reality that great transit and pedestrian access are keys to economic and social equity success, analogous in some ways to Georgia Tech’s move across the Downtown Connector into Midtown with Tech Square.

Additionally, this framework will create a clearer, more continuous linkage system that highlights West End’s many parks and cultural amenities, from Adair Park, through the commercial core, to the Historic District and West End Park.

Furthermore, assuring that the area’s housing policies and programs can continue to accommodate the full range of incomes and ages presently there, understanding that there are certain to be both shifts and growth in repopulating what has been a declining population, is an important component of this framework. Finally, public education policies need to also change to anticipate these shifts and growth in population.

To guide what should be an exciting future, the studio suggests that the Community Improvement District (CID) that is presently in formation, with an inclusive leadership structure, could become the “quarterback” for many of the above initiatives. The work to be done is complicated and needs a long term, sustaining commitment to guide others’ initiatives into a cohesive whole. An important first step is to identify and promote a workable makeup for the CID, ensuring that the criteria can be met. With that, efforts should be made with agencies at the City, like Invest Atlanta and the City’s HUD programs, and/or foundations to support the necessary startup costs, so that the revenues generated by the CID can be applied to visible, “no brainer” improvements to show momentum and build confidence in leadership for the future. Updating the City’s Livable Centers Initiative (LCI) with the Atlanta Regional Commission is a crucial first step. The first LCI led to City land use policy and zoning moves that are entirely compatible with the above menu of initiatives. Its update could lead toward significant capital funding support that could apply to Lee Street or RDA streetscape improvements or to other community defined transportation related priorities.

The students and faculty have been appreciative of the opportunity to participate in this effort and excited by the commitment and dedication of community and AUC leaders to take this vital area to the next level.

Ideas Emerging for Further Study as Guided by Citizens and Groups

AUC Linkages

- Lee Street Bridge over I-20
- Lee Street pedestrian and bike corridor improvements
- Improve shuttle from AUC to West End

I-20 Linkages

- Ramping system improvements to alter the traffic flow to suit the proposed pedestrian corridor on Lee
- Northside Drive direct access to I-20

Commercial/Mixed Use District Investigation

- Ralph David Abernathy Streetscape and Tunnel Improvements
- Mall at West End redevelopment to attract TOD

Affordable Housing



Figure 2: Overview of Proposed “Big Moves”

Historical Significance

Several consultants, community keepers of history and urban planners have charted the rich history of the West End neighborhood. This brief historical account, in particular, will highlight previous works from Karl W. Barnes' September 2002 "Your Vision, Your memory, Your challenge: Preservation is Good for Your African American Neighborhood Revitalization" article; the City of Atlanta and Atlanta Regional Commission's West End District Livable Centers Initiative Plan (2001); and the Clark Atlanta University (CAU) Economic Development Center's West End Revitalization Plan (1992).

Established in 1835 and listed in the National Register of Historic Places, the West End district is one of Atlanta's oldest neighborhoods. (City of Atlanta, 2001, p. 14) Since its inception, a strong cultural history and sense of community pride has embodied a significant element within the development, civic composition and aspirations of the West End community (West End Revitalization Plan, 1992, p. 4) (Barnes, 2002, p. 4).

"West End began as a traveler's rest stop at Charner Humphrie's Whitehall Tavern on the east side of what is now Lee Street between Gordon Street and Park Street." (CAU, 1992, p. 4) The 1835 small village predated the settlement of Atlanta by two years and was named after the two-story tavern painted white when most buildings of the period were unpainted. (Barnes, 2002, p. 4) (CAU, 1992, p. 4) "White Hall was the stagecoach stop, tavern, post office, home of the 530th Militia District, and election precinct." (Barnes, 2002, p. 4). Between 1835 and 1868, the railroad and West End's location helped the area become one of the fast growing suburbs in Atlanta. (Barnes, 2002, p. 4) (CAU, 1992, p. 4) White Hall served as a crossroads, with both the Western and Atlanta Railroad and the Macon and Western Railroad coming through the area during this

period. (City of Atlanta, 2001, p.14) This period also saw the ascending neighborhood change its name to West End. (CAU, 1992, p. 4)

In 1871, the West End was served by Atlanta's first municipal street car line. (CAU, 1992, p. 4) The street car line originally followed along Lee and Gordon Street (now Ralph David Abernathy) and extended for four blocks along Green Ferry (now Westview), Park and Oak Streets from Lee, and along Ashby, Peoples, Lawton and Holderness Streets from Gordon. (CAU, 1992, p. 4) In 1886, a portion of the old McPherson Barracks (which was located on the north end of the West End and housed federal troops during Reconstruction) became the home of the Spelman Seminary for Colored Females (now Spelman College). (Barnes, 2002, p. 4) "The streetcar developers excluded the north end (of West End) from the new residential village of the West End, and West End Avenue, a 56 ft. wide street, was the racial dividing line." (Barnes, 2002, p. 4)

In January 1894, the West End was annexed to the City of Atlanta and the neighborhood became the city's Seventh Ward. (West End) (City of Atlanta, 2001, p.14) In 1907, historic Fire Station #7 on West Whitehall Street was built to fulfil a promise to deliver fire protection and complete the annexation plan. (CAU, 1992, p. 4)

"The late 1800's and early 20th century saw rapid growth in national and local prosperity. Mobility created by the automobile augmented this growth." (City of Atlanta, 2001, p.14) Residents were no longer limited to living along street car lines, and residential development inched further out along Cascade and Gordon. (CAU, 1992, p. 4) "The result was a progression of residential development along Peoples, Lawton and Holderness Streets." (CAU, 1992, p. 4)

During the fifty year economic cycle from 1930 to 1980, the West End, like other “close in” commercial and residential neighborhoods across Atlanta, underwent several states of transition. (CAU, 1992, p. 4) “(T)he neighborhood experienced significant decline in the 1930’s due to the economic depression followed by World War II. Many homes were subdivided into boarding rooms and duplexes, while many of the district’s larger homes; Victorian mansions were abandoned for the smaller bungalows of Morningside and other Atlanta neighborhoods. By the middle of the 1940’s development again accelerated and commercial areas were refined along Ralph David Abernathy Blvd. In the 1950’s financial investments in the area came to an end due both to impending suburbanization and the mass migration of West Enders into the suburbs,” a dynamic that occurred in many Intown neighborhoods throughout Atlanta and the Southeast.” (See City of Atlanta, 2001, p.14)

“The mid 1960’s saw the beginnings of integration, which would lead to eventual re-segregation of the neighborhoods. A recipient of federal Urban Renewal grant monies, West End was once again transformed in the late 1960’s. Interstate 20 was constructed north of RDA Boulevard and significantly separated the northern portion of West End (including the historically Black Atlanta University campus and predominantly African-American residential area), from the south communities which would become West End and Adair Park.” (City of Atlanta, 2001, p.14) “Urban Renewal Programs, managed by the Atlanta Housing Authority, displaced many residents to build public housing, the Mall at West End and ancillary access ways to I-20. These activities left many portions of the West End’s land surface scarred and vacant. Moreover, unchecked development of public housing

without concern for a long range community plan created a demographic imbalance in the community which was compounded by suburban flight of the ablest residents and the invasion of residents and businesses that had no knowledge of or linkage to the history and tradition of the community.” (CAU, 1992, p. 4) The result was a long-term trend of economic deterioration and residential flight, with a total population decline of 56% between 1940 –1980. (City of Atlanta, 2001, p.14)

“With its contextual face drastically changed, the West End changed and the community entered in the 80’s as a deteriorating neighborhood far removed from its turn of the century splendor. Awareness of this condition gave rise to efforts aimed at revitalizing the community.” (CAU, 1992, p. 4). In 1989, WEND (West End Neighborhood Development), the West End’s new homeowner’s association, with assistance from the Atlanta Preservation Center, the Georgia Trust, and the Historic Preservation Division, helped formulate a plan and process to get the Atlanta City Council (via the Atlanta Urban Design Commission (AUDC)) to designate the West End as a historic district. (Barnes, 2002, p. 5) By 1999, the historic West End district was placed on both the Georgia and National Register. (Barnes, 2002, p. 5) “Local AUDC designation provided land use, zoning and architectural guidelines. Through these local, state, and national designations, the West End Historic District was preserved.” (Barnes, 2002, p. 6)

Demographics

West End has experienced a long-term trend of population decline. While in recent years population decline has slowed somewhat from higher levels in the mid-to-late 20th Century, it has continued nonetheless. The study area for the plan saw a 21.3% decrease in overall population between 2000 and the 2008-2012 American Community Survey. The largest drops in population during this time were seen in Census Tracts 41 and 58.

During the same time period, the area saw relative gains in residents in the older age groups. The share of residents aged 45 to 64 increased from 16.4% to 24.3%, and the share of residents aged 65 and over increased from 7.6% to 9.0%. The area maintained a disproportionately large share of residents aged 18-24; 26.5% were in this age group during the 2008 to 2012 period, much larger than the 9.3% share in the Atlanta metro area as a whole for the same time period. This age group is mainly concentrated in Census Tract 43, near the Atlanta University Center colleges. Similarly, the area has seen an increase in the relative share of nonfamily households, from 46% of all households in 2000 to 56.6% of all households in the 2008-2012 survey.

The racial makeup of the study area saw only minimal changes between 2000 and 2010. While the share of African-Americans decreased slightly during this time, this racial group still comprised the vast majority of the area's population during the 2008-2012 period, at 87.8%. The proportion of white residents increased somewhat, from 3.2% to 8.3%, and the share of Asian residents decreased slightly, from 3.6% to 1.6%.

Over the past decade, the educational attainment of the study area's residents has generally increased. 2008-2012 data shows that 22.5% of the area's residents had at least a bachelor's degree, a marked increase from 9.5% in 2000. Similarly, 80.2% of residents surveyed between 2008 and 2012 had at least a high school diploma, a significant increase from 57.9% in 2000. Most of the increase in college-educated residents occurred in Census Tracts 42 and 43, which are adjacent to the Atlanta University Center and include the West End core and Castleberry Hill areas, respectively.

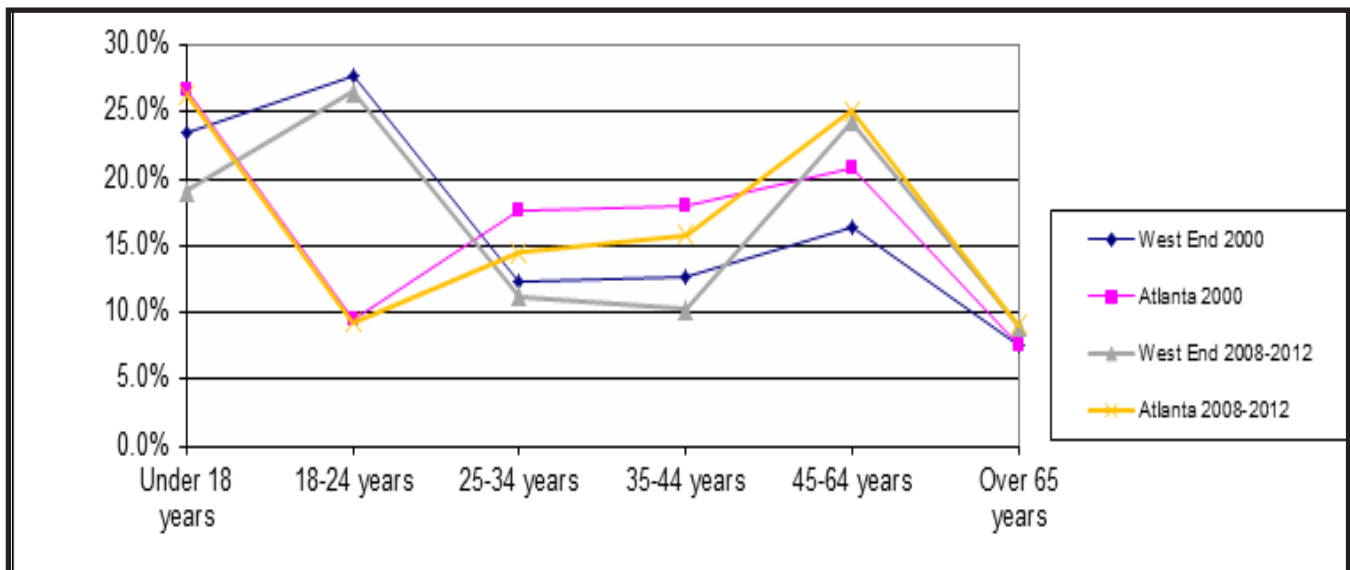


Figure 3: Percentage by Age Group in West End and Atlanta Metro

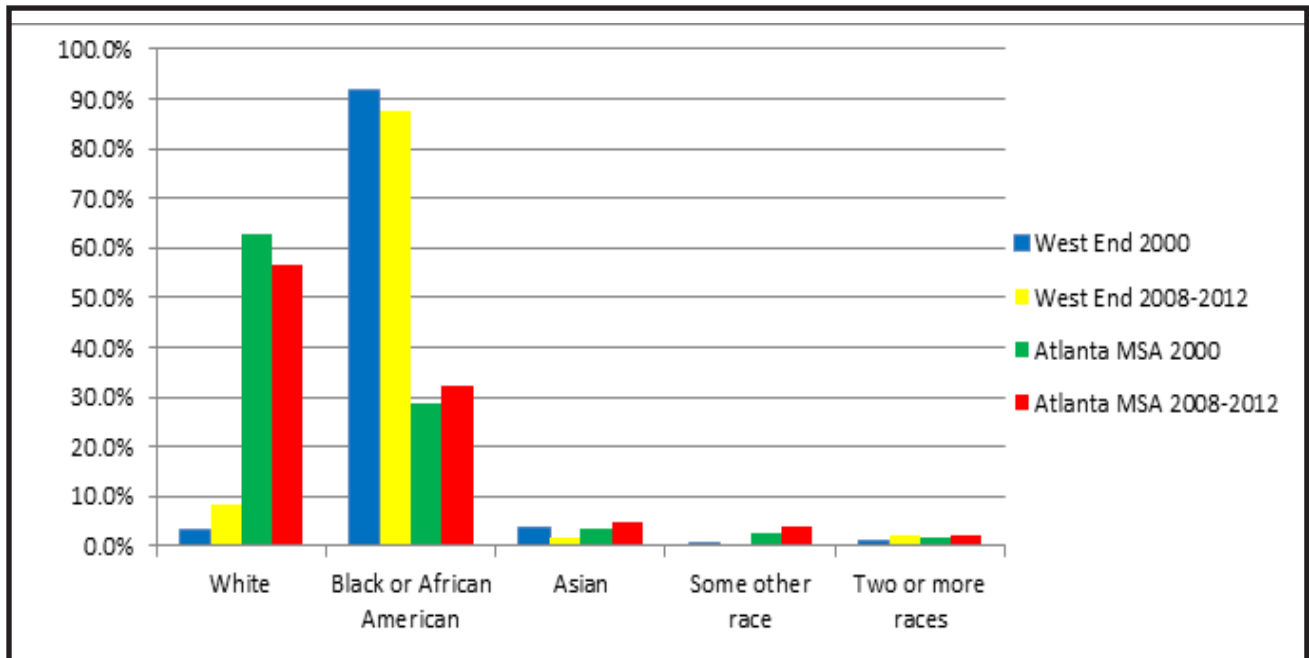


Figure 4: Racial Makeup of West End and Atlanta Metro

Despite a population decrease during the 2000s, the study area saw growth in housing units. Total units increased from 4,583 to 5,736, a 25.2% gain. In the absence of population growth, this led to a drop in the area's occupancy rate, from 85.6% to 66.6% during the same time period. The share of housing units that were owner-occupied fell slightly as well, from 29.2% to 26.5%. The study area

has a significantly lower proportion of owner-occupiers than the Atlanta metro area as a whole, which had an owner-occupancy rate of 66.2% for the 2008-2012 period.

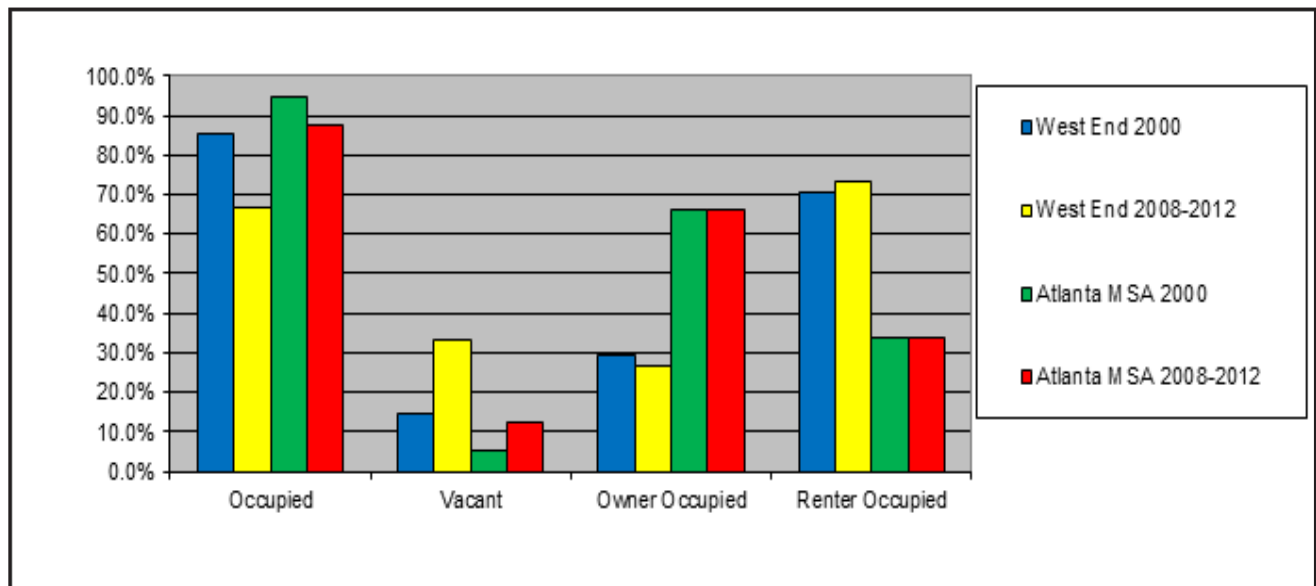


Figure 5: Vacancy and Owner-Occupancy in West End and Atlanta Metro

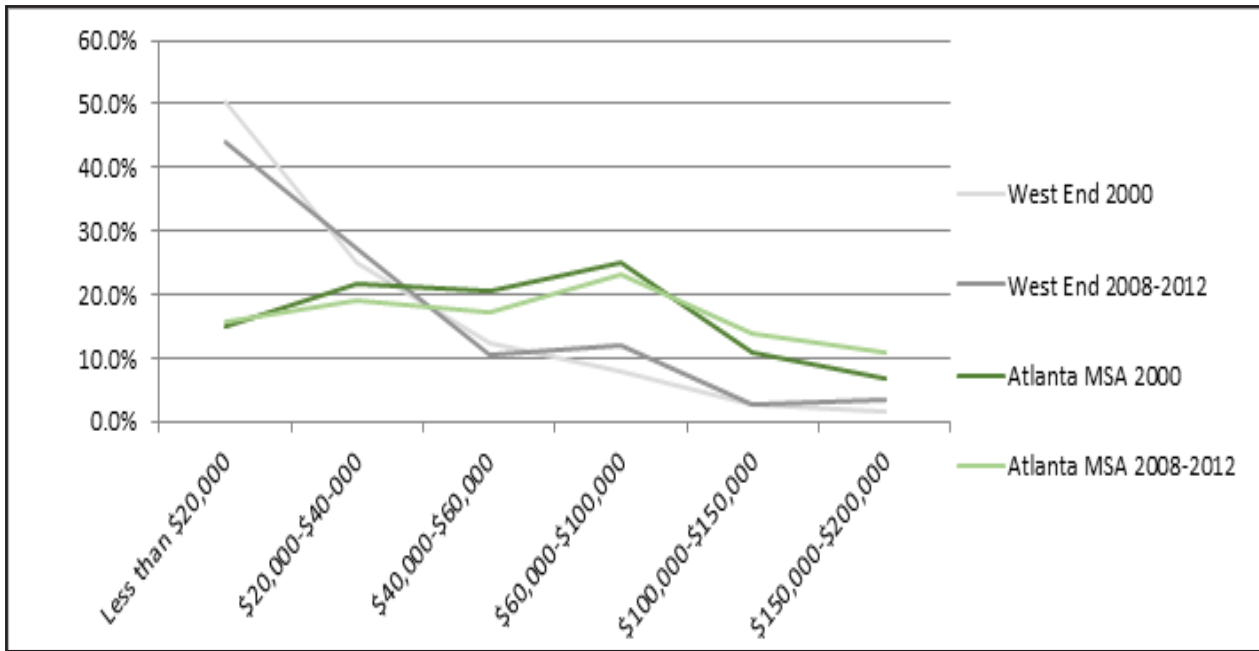


Figure 6: Income Distribution in West End and Atlanta Metro

Incomes in and around the West End area also tend to be significantly lower than the metro area as a whole. Median household income and median family income in the study area for the 2008-2012 period were \$22,980 and \$25,980, respectively; these figures are well below the medians for the metro area (\$57,470 and \$67,451, respectively). Median household income and median family income increased 15.6% and 9.5% respectively between 2000 and 2010.

Property values and rents saw larger increases than incomes in the West End and surrounding neighborhoods during the 2000s. Median value of owner-occupied housing units more

than doubled, from \$71,016 to \$147,843. This increase in median values is likely driven by new units in Census Tracts 42 and 43, respectively the core of West End and Castleberry Hill; these tracts had respective median values of \$195,000 and \$253,200 in the 2008-2012 survey. Median rent, while not growing as quickly as home values, significantly increased in the area as well; it rose 77.9% during the decade to \$815 for the 2008-2012 period.

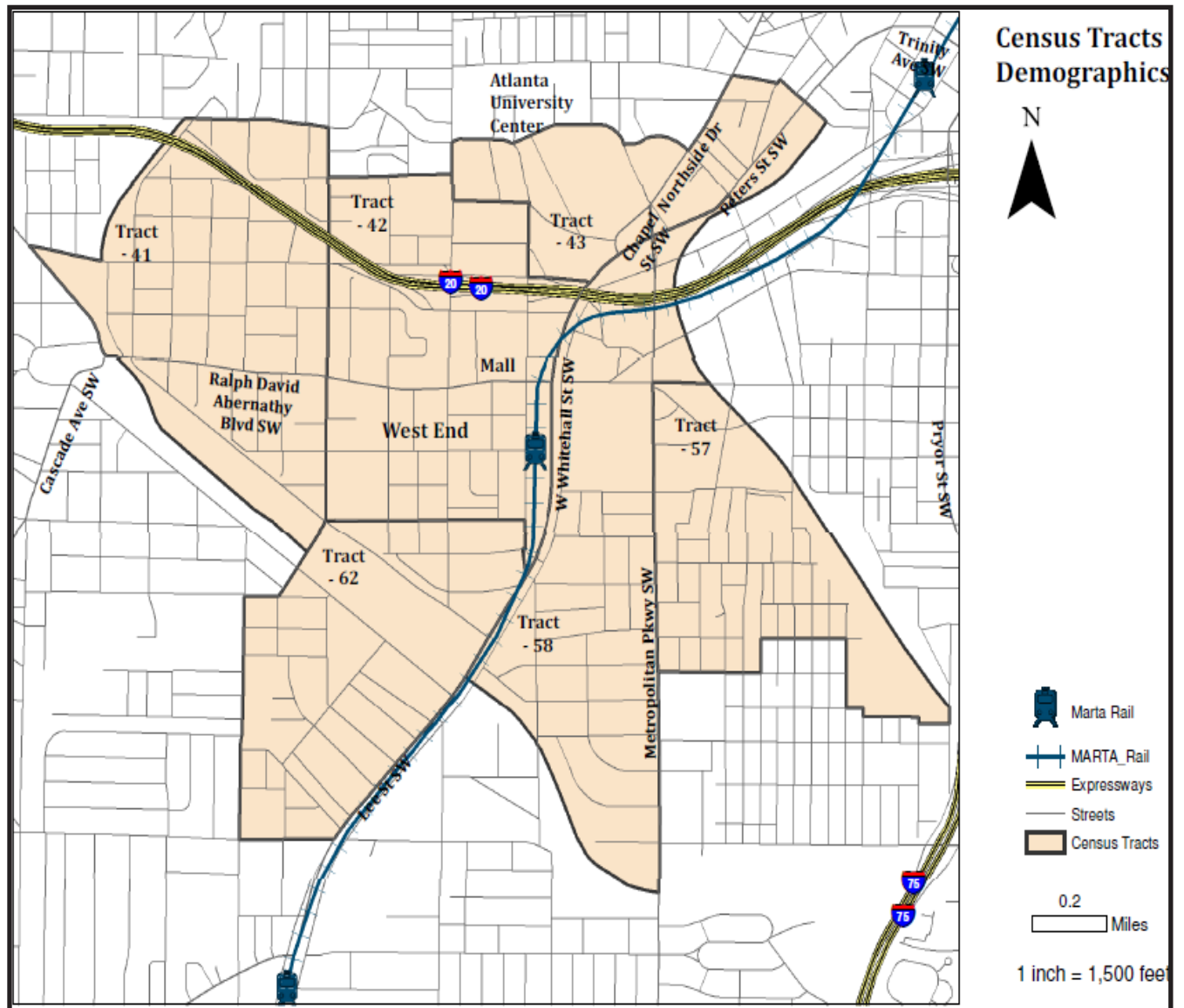


Figure 7: Census Tracts in and around West End study area
(Source: US Census)



Transportation

Overview

Transportation infrastructure, such as Interstate 20, north-south rail lines, and the discontinuous Northside Drive, has limited the amount of external connections to the West End area, isolating West End from Downtown and its surrounding communities. The best opportunity for re-establishing connectivity to the communities surrounding West End is with its neighbor to the north, the Atlanta University Center (AUC). The connectivity between the AUC and the West End community has been fractured by Interstate 20. The area of AUC and West End was a contiguous community until the construction of the interstate. In order to capitalize on the commercial and economic opportunities of West End, the connectivity between the AUC and West End must be reestablished and strengthened. The following is a brief "SWOT" analysis of current transportation infrastructure, identifying the strengths, weaknesses, opportunities, and threats to the economic well-being of the West End community.

Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

Strengths:

- The neighborhood is within close proximity to several strong commercial bases
- AUC has access to MARTA bus and rail service at West End station through a shuttle service
- Bicycle and pedestrian facilities are expected to improve after the Southwest Trail of the Atlanta BeltLine is built just south of West End
- Streetscape improvements on RDA commercial corridor are already underway

Weaknesses:

- Connectivity to AUC, Downtown, and surrounding neighborhoods is constrained by I-20, commercial and passenger rail, and the discontinuity of Northside Drive

- Current configuration of I-20 ramping system at Lee Street discourages bicycle and pedestrian traffic in the Lee Street Corridor
- Lack of trees around commercial core promotes urban heat island effect, making pedestrian/bicycle travel unpleasant
- Current shuttle from AUC lacks visibility and runs on an infrequent schedule
- Lee Street corridor lacks a cohesive commercial environment

Opportunities:

- Current Lee Street bridge over I-20 is very wide, with more capacity for vehicular traffic than necessary; Space is available for pedestrian/bicycle improvements
- Realignment of Northside Drive into West Whitehall Street may ease need for capacity in vehicular north-south traffic in Lee Street corridor
- Planned bicycle facilities on RDA, Peters Street, Whitehall Street, Joseph E Lowery Boulevard and Lee Street south of RDA will supply West End with a network for transportation alternatives that could link to the AUC
- Planning for the extension of the Atlanta Streetcar is under way and is considering how to provide connections to both the AUC and West End
- The proposed West End Commercial Improvement District could provide the West End business community with a means to increase the appeal of the commercial core and improve connectivity to surrounding areas

Threats :

- The AUC's willingness to embrace the West End as an extension of their campus is not certain and may be overshadowed by an interest in connecting with communities north and east of campus
- Funding for improvements to the Atlanta BeltLine, area bicycle infrastructure, and Atlanta Streetcar has not been fully identified and may result in substantial delay in their implementation
- If the proposed West End Commercial Improvement District is unable to gain enough members, the West End business community will have limited capacity to direct and fund improvements

Objectives of Solutions

The following proposals are put forth to increase the overall pedestrian activity and access to the West End commercial core. Through initiatives that enhance the walkability, safety, access, and aesthetics of the connections between West End and the AUC, additional opportunities would be created for increased commercial activity and investment. This potential activity and investment could lead to improved development patterns that are more supportive of the existing rail station and the attractiveness of the community for investment.

AUC Shuttle

As an initial step, a more visible and improved shuttle with a frequent service and a clear route would create connections between the AUC, West End, and three MARTA stations. The AUC currently provides a shuttle daytime shuttle but lacks a single fixed route, consistent schedule, and sufficient evening and weekend hours of operation. The inclusion of one set route and a frequent-service shuttle, including during nights and weekends, will provide a reliable connection between the communities and increase the overall potential for commercial activity in the West End. This would also create opportunities

to engage the AUC and West End communities with one another and to mitigate some of the isolation caused by I-20.

West End Commercial District Streetscape

The City of Atlanta's Department of Public Works has three West End Livable Centers Initiative projects funded by federal Surface Transportation Program funds and local funds. These projects are all streetscape improvements which aim to increase pedestrian connectivity in the area. The first project consists of pedestrian and intersection improvements to Ralph David Abernathy (RDA) Boulevard from Lowery Boulevard to Lee Street. Construction began fall 2013 and is scheduled to be completed spring 2014. The second project consists of pedestrian improvements to Lowery Boulevard from RDA to I-20. Finally, the third project consists of pedestrian improvements near Harris Homes along Lowery Boulevard from I-20 to Sells Avenue.

It is recommended that pedestrian, intersection, and streetscape improvements also be constructed on Ralph David Abernathy Blvd past Lowery Boulevard, on Oak Street (between Lowery Blvd. and Lee Street), and on Lee Street from the AUC to the West End MARTA station. These infrastructure improvements would support the mission of increased connectivity to surrounding neighborhoods by providing a more walkable connection to the AUC, the Metropolitan Lofts, and other communities.



Figure 8: RDA Street Improvement Project



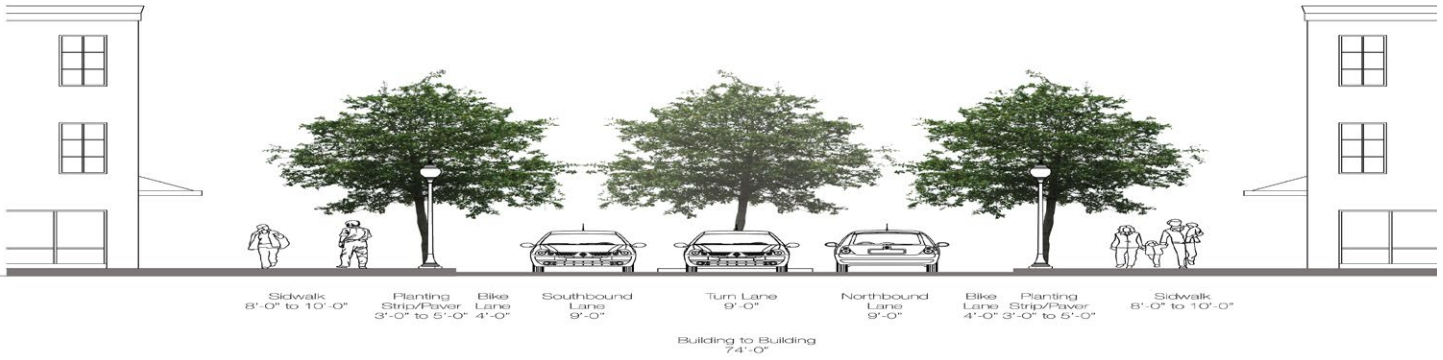
Existing Conditions - Lee Street at MARTA Station

Scale 1/16" = 1'-0"

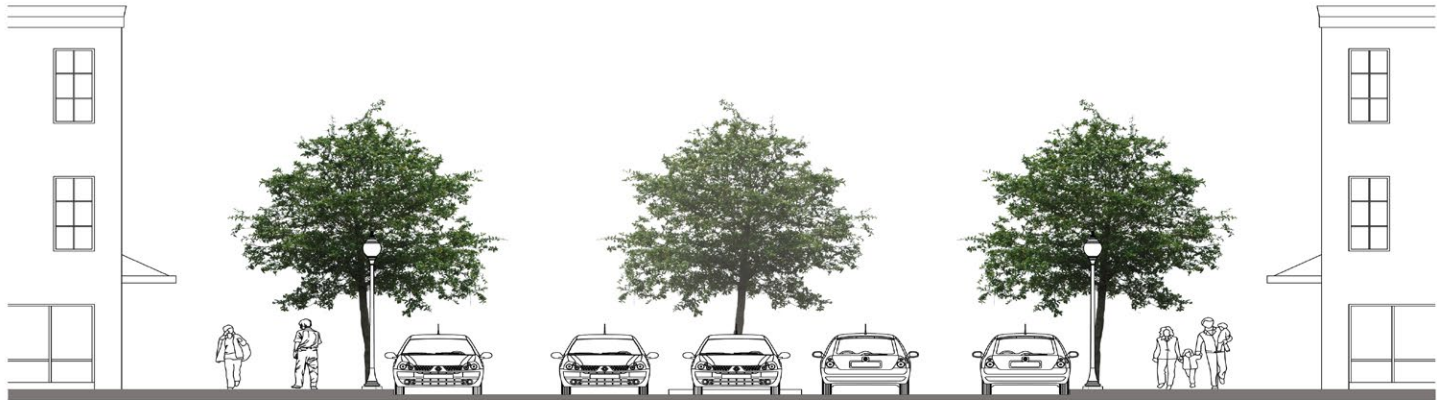


Existing Conditions - Lee Street the Mall at West End

Scale 1/16" = 1'-0"



Building to Building 74'-0"



Building to Building 88'-0"

Figure 9: Proposed Lee St Street Business District Improvements

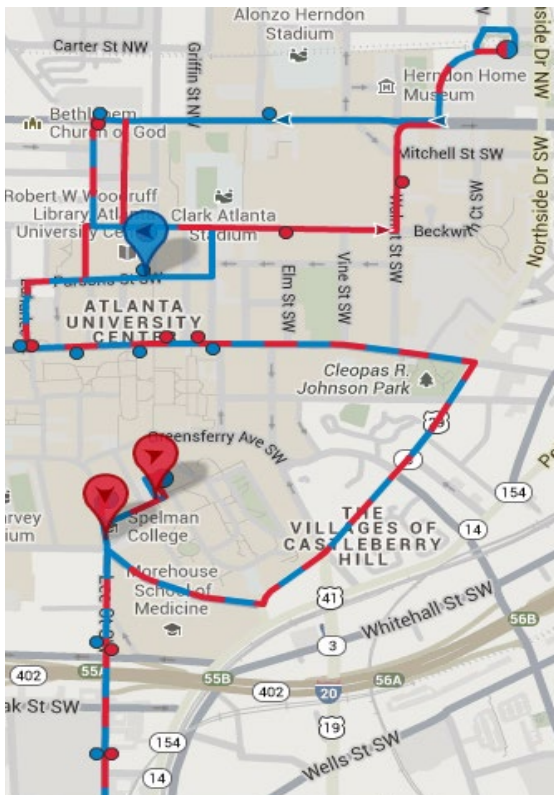


Figure 10: Current AUC Shuttle Route



Figure 11: Proposed AUC Shuttle Route

ARC ID	GDOT ID	Project Name	Project Description	Phase	Fiscal Year	Fund Type	Status	Federal	State	Local	TOTAL
AT-AR-231	0004461	Ralph David Abernathy Blvd Pedestrian & Intersection Improvements	Pedestrian improvements including pedestrian lighting, landscaping, and street furniture on both sides of Ralph David Abernathy Boulevard from Ashby Street to Lee Street, with 10' sidewalk on north side. Also includes intersection improvements on RDA at Lee Street and Ashby Street by modifying the signal timing, protected left turns, adding mastheads and inlaid crosswalks.	PE	2004	L230 (STP-Urban)	AUTH	\$152,900	\$0	\$38,225	\$191,125
				ROW	2007	Local	AUTH	\$0	\$0	\$50,000	\$50,000
				CST	2011	L230 (STP-Urban)	AUTH	\$1,014,400	\$0	\$253,600	\$1,268,000
AT-AR-233	0004463	Lowery Blvd (aka Ashby St) Ped. Improvements	Addition of landscaping, pedestrian lighting, street furniture, sidewalks and crosswalks on both sides of Ashby Street from RDA Blvd to I-20.	PE	2004	L230 (STP-Urban)	AUTH	\$205,500	\$0	\$51,375	\$256,875
				ROW	2007	Local	AUTH	\$0	\$0	\$100,000	\$100,000
				CST	2011	L230 (STP-Urban)	AUTH	\$501,800	\$0	\$125,450	\$627,250
TOTAL								\$1,874,600	\$0	\$618,650	\$2,493,250

Figure 12: RDA Street Improvements from email sent by Amy Goodwin of ARC to Charlene Mingus

Lee Street Bridge

In order to capitalize on the potential of the West End MARTA station, and to evolve the area into a walkable and more transit-oriented community, improving the pedestrian infrastructure network and streetscape plays an essential role. Lee Street Bridge, spanning over Interstate 20, represents the greatest opportunity to establish a physical connection between the AUC and West End, while also increasing walkability and bikeability to the West End commercial district. Centered between the two communities, the Lee Street Bridge represents an opportunity to serve as a

dually supported connection and node. Lee Street Bridge could also serve as a node and a place for activity and gathering while connecting the two communities. For example, the repurposed bridge provides an opportunity to host AUC and community organization events (e.g., local small fresh food and retail vendors) as well as serving as an informal destination for social gatherings. For comparison and validation, a similar idea has already been implemented at the 5th Street bridge, connecting Georgia Tech to Midtown.



Figure 13: Current Lee Street Bridge facing North

Spatial Similarities

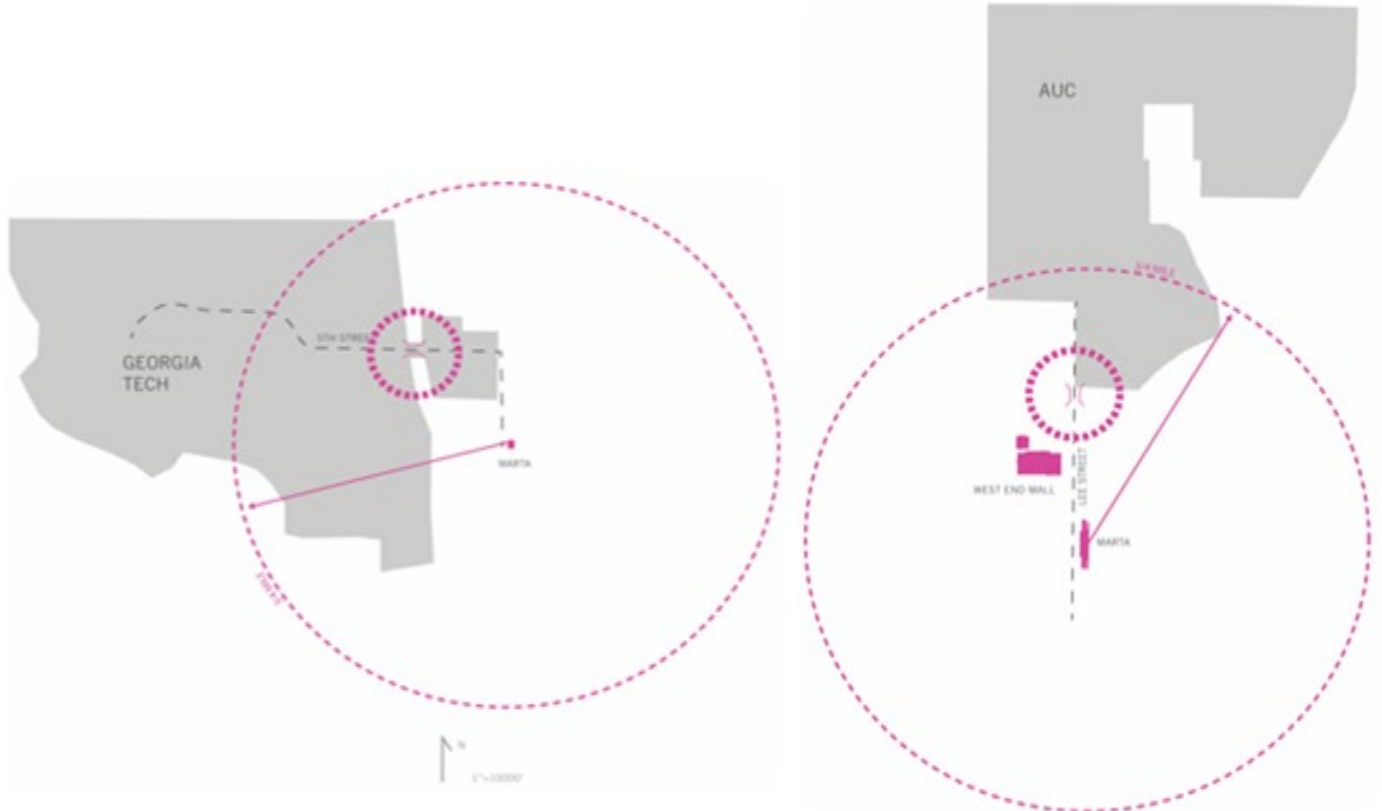


Figure 14: Spatial Similarities between Georgia Tech's campus (via 5th Street Bridge) to the Midtown MARTA station and the Atlanta University Center's campus (via Lee Street Bridge) to the West End Station.

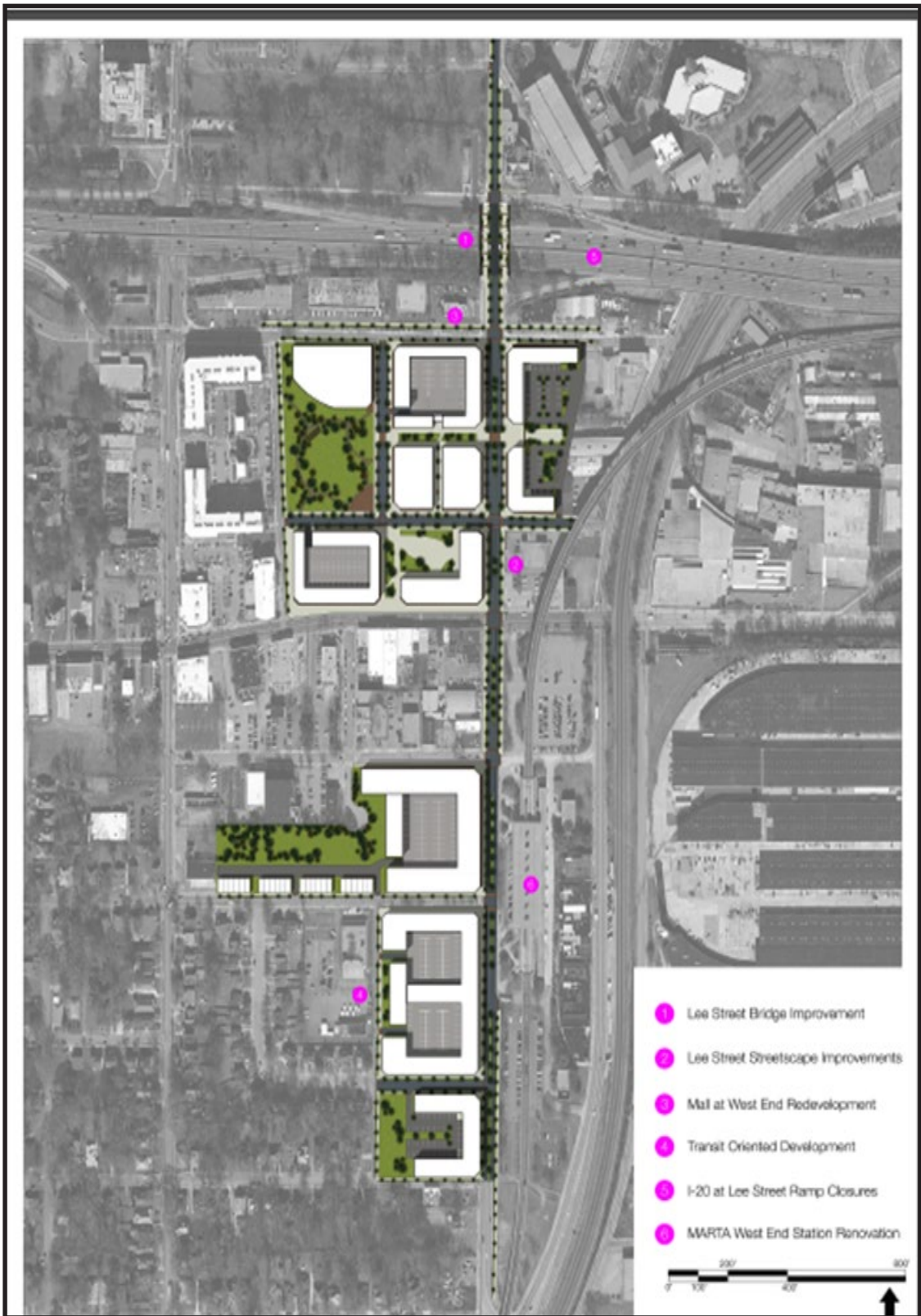
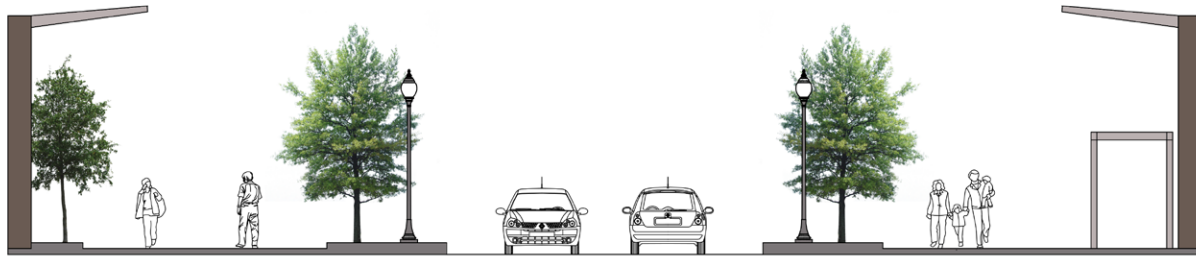


Figure 15: Lee Street Bridge Redesign Proposal in Relation to the Proposed "Big Moves"



Pedestrian Path
32'-8"

Bike Lane
4'-0"

Southbound Lane
9'-0"

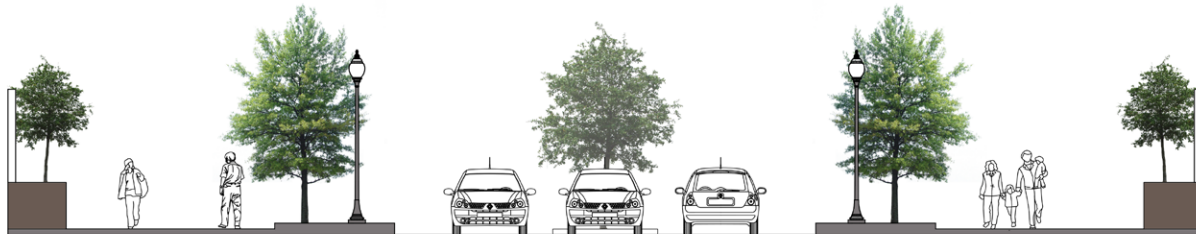
Northbound Lane
9'-0"

Bike Lane
4'-0"

Pedestrian Path
32'-8"

Alternative One - Lee Street Bridge

Scale: 1/8" = 1'-0"



Planting Strip
5'-4"

Pedestrian Path
19'-3"

Planting Strip
7'-0"

Bike Lane
4'-0"

Southbound Lane
9'-0"

Southbound Turn Lane
9'-0"

Northbound Lane
9'-0"

Bike Lane
4'-0"

Planting Strip
7'-0"

Pedestrian Path
19'-3"

Planting Strip
5'-4"

Alternative Two - Lee Street Bridge

Scale: 1/8" = 1'-0"

Figure 16: Lee Street Bridge Redesign Alternatives (Dimensions)



Alternative 1- Lee St Bridge



Alternative 2- Lee St Bridge

Figure 17: Lee Street Bridge Redesign Alternatives (Diagram)



Figure 18: Ground Level View of Proposed Lee Street Bridge Redesign (Alternative 1)

Closing of the Interstate 20 Exit and Entrance Ramps

To support the Lee Street Bridge as a means of improving the walkability of the entire Lee Street corridor, it is recommended that the ramps immediately north and south of the bridge that provide access to Interstate 20 be closed. By doing so, a continuous pedestrian-friendly corridor, uninterrupted by interstate access traffic, is created, supporting a pleasant and continuous pedestrian path. With existing entrance and exit ramps less than a quarter mile west, removal of the I-20 access ramps at Lee Street should not inhibit access to

both West End and the AUC. The ramps at the Lee Street Bridge represent an unnecessary impediment to the connectivity and aesthetics of the corridor and connectivity of the Lee Street Bridge. In addition, because of their close proximity to other interstate ramps and the weaving movements they induce, reworking these ramps should improve safety and operation of I-20. Furthermore, the closing of the ramps should reduce the overall traffic on Lee Street and many of its intersecting streets that reduce the walkability of the Lee Street corridor.

Financing Solutions

Funding for the AUC shuttle could be a partnership between the AUC, MARTA, and the proposed West End CID. All three have a vested interest, the West End with increased commercial activity, MARTA to promote cooperative approaches to boosting ridership, and the AUC as an extension to their campus. Partnering would make the commitment more feasible and less expensive for each. The proposed pedestrian and bicycle improvements, which should also stimulate commercial activity, may have the potential for funding from the BeltLine TAD.

Funding for the bridge would likely need to come from multiple sources. While opportunities for fundraising activities between West End and the AUC could be available, support would also need to come from the Georgia Department of Transportation (GDOT) and the City of Atlanta, with funding package similar to that of the Fifth Street Bridge. Funding for the closing of the Interstate 20 ramps would likely need to originate from the GDOT as well. An updated Livable Centers Initiative plan could lead to a capital grant from ARC as part of match funding.

Northside Drive Connection

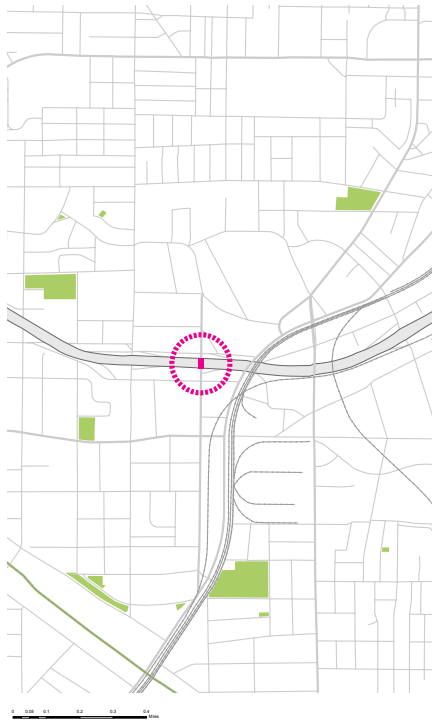
A studio completed in the spring of 2013 dealt specifically with changes to the Northside Drive corridor. Work for this project was essentially broken up into sections of the corridor itself. As such, the southern terminus of Northside Drive was one of the sections of the project; this is the part of the project the planning effort for the West End is most concerned with.

The project found that the southern terminus of Northside Drive, and the area near it around I-20, is “characterized by a confusion of land use, transportation infrastructure, deterioration, disconnectedness, and environmental complications.” Unclear routes to major destinations, confusing intersections, and different types of infrastructure at different grades (roads and rails) plague this area. At the same time, the area is thought to have potential, being bordered

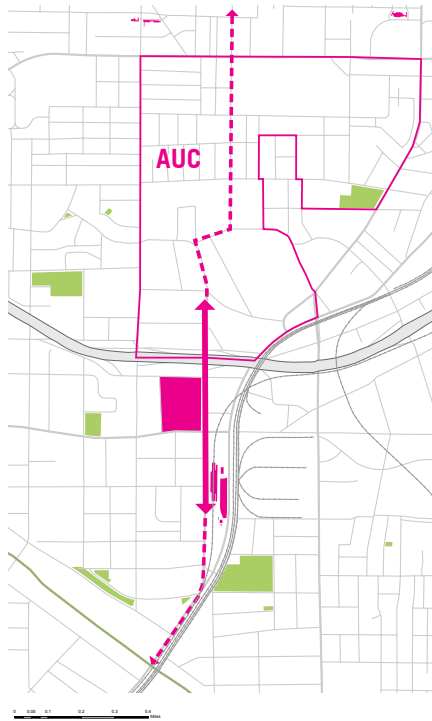
by the redeveloped residential area of Castleberry Hill, the Atlanta University Center, and the core of West End, which includes the West End MARTA rail station.

A realignment of Northside Drive in this area was identified by the studio as the single largest and most cost- and time-effective improvement that could be made to reinvigorate the area and create positive effects for the adjoining areas. Specifically, the studio recommended Northside Drive be shifted to follow Peters Street and West Whitehall Street south from downtown (presently, one must turn onto Chapel Street and then Peters, which becomes Whitehall). This realignment would create better connectivity between the Northside Drive corridor (and downtown more generally) and I-20 and the West End. It would provide a seamless connection with Ralph David Abernathy Blvd. and the West End MARTA station. In doing so, it would also reduce confusion on the part of travelers between the two areas, possibly encouraging more interaction between the two areas.

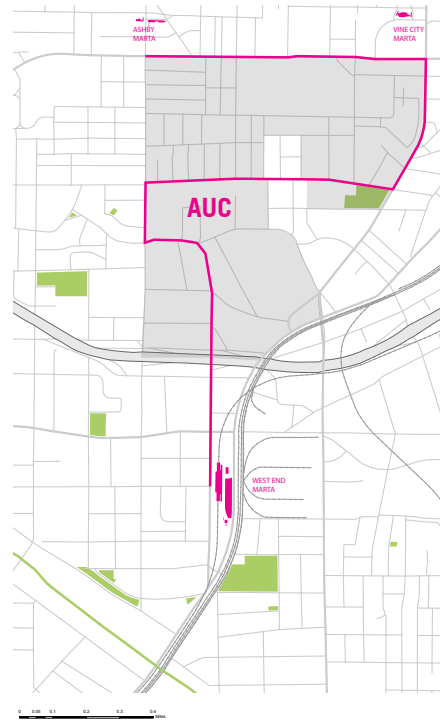
The need for this realignment of Northside Drive is reinforced by the planning effort for West End. The proposed new Northside Drive alignment is therefore considered in the transportation plan for the West End (including realignment of the I-20 on- and off-ramps) and in land use recommendations, encouraging more interaction between the two areas.



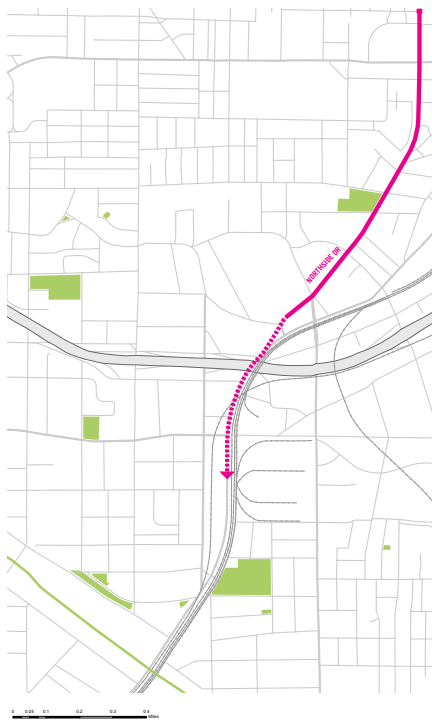
1. AUC Linkage - Lee St. Bridge Over I-20



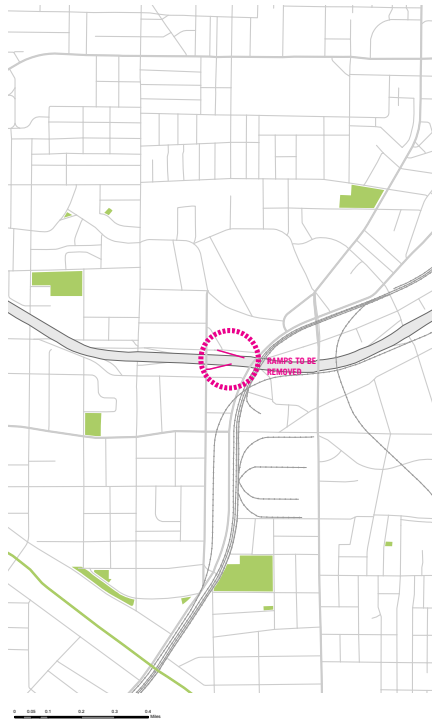
2. AUC Linkage - Lee Street Pedestrian Corridor Improvements and Connection to Brawley and Beltline



3. AUC Linkage - Improve Shuttle From AUC to West End



4. Downtown Linkage - Northside Drive Connection to West End



5. I-20 Linkage - Ramping System Improvements to Alter the Traffic Flow to Suit the Proposed Pedestrian Corridor on Lee St.

Figure 19 Alternate View of Transportation Big Moves



CITY OF ATLANTA
Gordon
Park

PARK CLOSED



Environment | Brownfields | Greenspaces

Environmental Quality and Public Health

The West End community has various natural features which have implications for overall environmental quality and human health. As part of the framework plan, this section focuses on the West End business district by building on existing strengths and maximizing the opportunities to enhance the streetscape and urban form into an integrated ecological design. In order to create a lasting urban space, it is important to understand the natural context and the forces that it exerts upon the built environment. It is just as important to have an understanding of the social needs in order for the area to thrive. Considering the natural and social forces in the framework plan will result in an effective plan to address the substantive needs of West End.

Problem Statement

The West End has many positive natural and social aspects which ought to be emphasized and celebrated, but there are many factors which should be addressed to promote the health and vitality of the community. The environmental and public health aspects discussed in this section are directly related to the other components of the comprehensive plan; they cannot be considered apart from the overall context. Accordingly, this section seeks to answer the following research question:

How can the West End integrate economic, transportation, and community development initiatives with an emphasis on ecological and social sustainability at the neighborhood level?

Ecological and social sustainability are an important component to framing this question. Sustainability in this context is defined as preserving and enhancing the functionality of existing complex systems, and to ensure their resilience into the future. Ecological sustainability refers to long-term preservation and enhancement of all plant, animal, air, water, and other natural resources which are local to the area. Social sustainability refers to the engagement of the community in decision making processes, the enhancement of the quality of life, and the preservation of the community's resilience for future generations.

In order to answer this question, it is important to understand the characteristics of the urban ecology in the West End, and its context within the broader City of Atlanta. This section will give a detailed analysis of the neighborhood's environmental considerations, reveal insights into the public health of the community, and layout a framework for civic involvement in the planning process to emphasize these important features within the overall comprehensive plan.

Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

Strengths

- The residential portion of West End has good tree coverage
- The Southwest Beltline runs along the southern boundary of the study area
- Many parks exist throughout the neighborhood

Weaknesses

- There are numerous brownfields in the study and impact areas
- The lack of trees in the commercial district around the Mall at West End creates an urban heat island in that area and, as a walking and transportation corridor; this may decrease quality of life
- Street lighting needs to be prevalent throughout the area to promote and improve perception of safety

Opportunities

- Civic involvement can help shape ecological and social sustainability
- Additional trees and vegetation could improve the quality of commercial district and decrease heat island effect
- Covered areas could provide shade for pedestrians
- The areas around the MARTA station could provide a good location for a farmer's market
- Through careful analysis of slope and topography, a comprehensive stormwater plan could be enacted to reduce runoff and strain on the municipal water treatment system

Threats

- Environmental remediation may be cost prohibitive and deter development or redevelopment
- The heat island effect and lack of greenspace could negatively affect quality of life
- Environmental quality and public health improvements are critically dependent on community participation and support

Ecological and Social Solutions and Means

Watersheds

The West End consists of two tributaries of the Chattahoochee Watershed. The Proctor Creek Watershed originates in Western Downtown Atlanta, with the Southern boundary extending into the Northern portion of West End above Oak Street. The Utoy Creek Watershed originates at Metropolitan Boulevard and permeates North and Westward into the remainder of the West End residential neighborhoods and the commercial district. Biological, chemical, and storm water runoff are significant concerns for both the immediate West End community and the broader Atlanta region. These problems can have a significant impact on the ecological and social sustainability of the neighborhood, which can also result in further disinvestment and population outmigration.

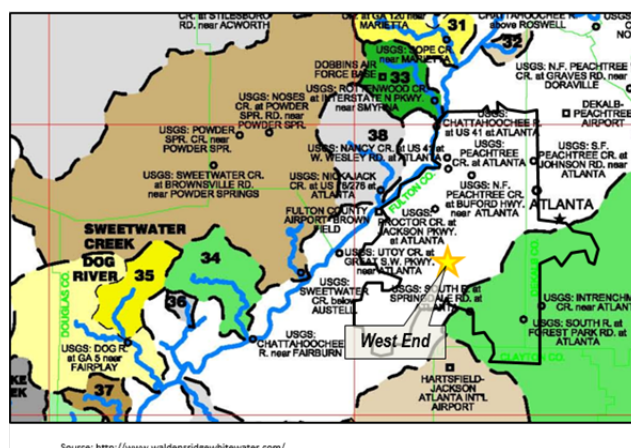


Figure 20: Map of Atlanta Area Watersheds

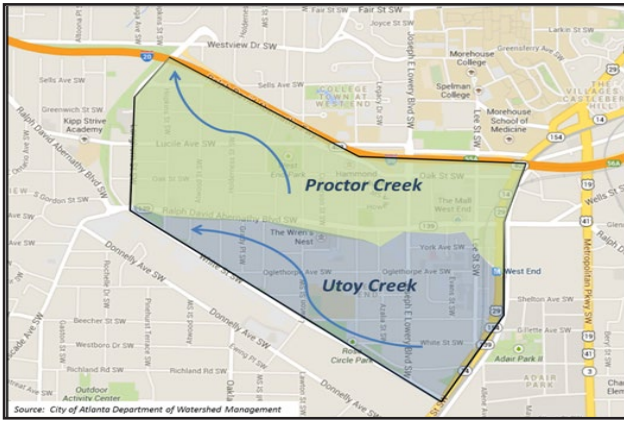


Figure 21: Proctor & Utoy Creek watershed flow in the West End

Regulating storm water runoff into these delicate watershed systems requires an active interest by the City of Atlanta. Many residents have voiced concern that industrial brownfields and construction sites allow unknown quantities of chemicals, refuse, and heavy metals into the watershed. The City of Atlanta has several programs in place to combat these problems, including greenspace protection, streambank stabilization, flood prevention, land development regulation, and storm sewer infrastructure maintenance. (City of Atlanta) Concerned citizens do not have the resources or authority on their own to enforce proper waste disposal away from the watershed. The NPU-T meetings serve as a forum to raise awareness of these problems, but when the city's programs are not a priority, these issues will persist.

It is recommended that the West End community leaders continue to engage the NPU-T, and form an alliance with the Metropolitan North Georgia Water Planning District (MNGWPD). MNGWPD is committed to preserving and enhancing the water resources of the city, and can provide the West End useful tools to assist in watershed protection. According to their website,

“The Watershed Management Plan sets forth strategies and recommendations for effective

watershed and stormwater management and water quality protection within metropolitan north Georgia. The Plan outlines tasks and milestones for implementing these recommendations and requirements for local governments as well as regional and state agencies.” (Metropolitan North Georgia Water Planning District)

Community leaders can find a wide variety of tools and resources to map out a community-level watershed management plan for the neighborhood. West End residents, with adequate support from the City, can promote the proper disposal of waste and chemicals, stormwater runoff control measures, and remediation procedures that can improve the quality of the area’s water resources. Additionally residents are more likely to support initiatives that originate from local leadership.

Vegetation & Permeability

The single-family residential neighborhoods, encompassing the majority of the West End Historic District to the North and South of Ralph David Abernathy Blvd., have rich tree density and small yard acreage (<.25 acre). This provides cooler ground temperatures in the summer through evapotranspiration, groundwater retention, and decreased direct exposure of sunlight to the pavement. As an added benefit, dense tree coverage can serve as a habitat for birds and small mammals which characterize the city's biodiversity.

The eastern portion of the West End including the commercial district, multi-family apartments and homes, and the rail lines has sparse tree coverage. Aerial imagery shows a high level of impermeable surfaces in the form of rooftops, parking lots and roadways. Sparse tree coverage can cause negative impacts on the environment including groundwater depletion from high surface runoff, intense heat island effect, and diminishment of biodiversity. These concerns

also effect human health and can increase the risk of heat stroke during the summer months, property damage from flooding, and respiratory illness.

This framework plan outlines a vision for the West End that incorporates many effective urban design techniques that can address these issues and provides a framework for the use of permeable surfaces, including porous paving techniques, in order to decrease surface runoff and replenish the groundwater supply. Streetscaping, sidewalk improvement, and minimum greenspace requirements can also work to alleviate the heat island effect where pedestrians travel. Adding a network of trees and grass strips along main road corridors to build scenic boulevards will foster biodiversity by connecting parks and dense residential woods to the West End commercial district.

Parks and Greenspace

Several parks are located within the study area, however, according to a land use analysis, parks and open space comprise only 3.7% of the land coverage. The ratio of park acreage per 1,000 persons is 2.4 acres, which is less than a quarter of the City of Atlanta’s goal to provide 10 acres of adequate park space per 1,000 residents. To meet the City’s goal, the West End would need approximately 3.1 new acres of parkland. Notwithstanding, these parks are a strength on which to build, and could serve as an opportunity for further greenspace expansion, ecological corridor networking, and watershed management. The following map and table list the parks in the study area:

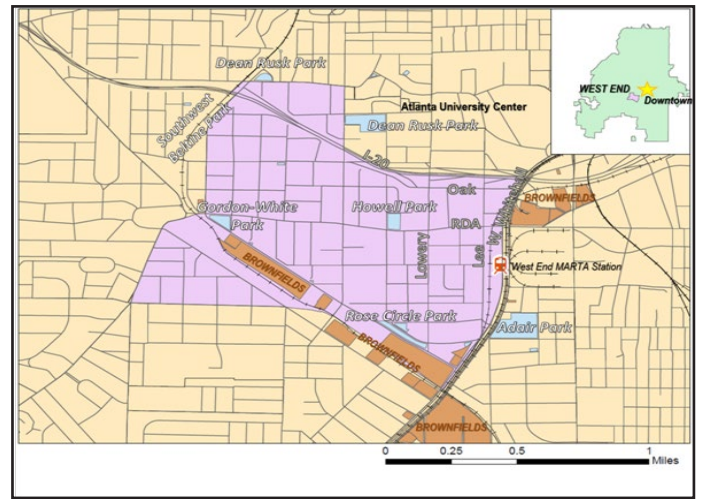


Figure 22: Parks and Brownfields around West End

Name	Location	Acres	Ownership
West End Park	1100 Oak St SW	6.5	City of Atlanta
Howell Park	580 Peoples St SW	2.1	City of Atlanta
Dean Rusk Park	1030 Sells Ave SW	6	City of Atlanta
Rose Circle Park	1025 White St SW	2.8	City of Atlanta
Gordon-White Park	1380 White St SW	1.8	City of Atlanta
West End Beltline Park	340 Langhorn St SW	10	City of Atlanta
Holderness-Lucile Park	1200 Lucile Ave SW	0.2	City of Atlanta
Green Leaf Circle	200 Napoleon Dr.	1	City of Atlanta

Table 1: Registry of Parks Around the West End

Currently, Ralph David Abernathy Boulevard is undergoing a significant streetscape renewal process which will address many of the concern mentioned such as heat island effect, improvement of the pedestrian experience, and reduction of stormwater runoff. This project will also serve to improve the biodiversity linkage between Howell Park and Gordon-White Park. With the redevelopment plan for the Mall West End, Lee Street could serve as a similar corridor to connect a future greenspace area at the site with the green space at the Atlanta University Center.

Brownfields

Brownfields are parcels of land that usually served an industrial purpose—either factories or warehouses—but have since been decommissioned and pose a potential threat to the environment and humans. Many brownfields require significant remediation to remove ground pollutants and other hazards to human and natural functions. Abandoned gas stations, dry cleaners, and storage facilities can also be classified as brownfields, depending on the degree of contamination to the local environment. However, brownfields have notable potential to become centers of redevelopment and revitalization if they are properly addressed. This is particularly true of brownfields that are located in close proximity to the downtown core or close to important community and transportation amenities. For these reasons, the West End brownfields could prove to be viable centers of redevelopment.

The previous map, “Parks and Brownfields around West End,” illustrates where the brownfields are concentrated. The South and East had much industrial activity in the early twentieth century. The remaining structures are decommissioned warehouses, workshops, and other industrial facilities that used to rely on the rail line for transporting goods. The Southwest Beltline plan incorporates the renovation of brownfields to the south of the trail.

The brownfields to the east of Adair Park are more challenging to the comprehensive urban form than the brownfields to the south because they are located at the crux of Northside Drive, Metropolitan Parkway, West Whitehall Road, and Ralph David Abernathy Boulevard. This area, in its current configuration and environmental condition discourages any form of substantial investment. However, the area holds the potential to become an important gateway for the Northside Drive corridor to connect directly into the West End neighborhood. The gated, art-centric community known as “The Metropolitan” also lies in this area, but is

separated from its surrounding context with security guards and fences. Nevertheless, this community could partner with Adair Park and West End’s civic engagement initiatives to bring awareness to this area.

Public Health And Public Safety

Noise and Air Pollution

Noise pollution in the area is created by the high volume of traffic in and around the West End and is particularly problematic along the I-20 corridor, where thousands of cars consistently travel at a high rate of speed at all hours of the day. Ambient noise on the Lee Street Bridge is very high, and creates an unfriendly pedestrian environment and reduces the connectivity from the Atlanta University Center campuses and the West End. Properties in the residential neighborhoods to the west that back up to I-20 also lose property values and desirability.

Lee Street and Ralph David Abernathy Blvd. have a high volume of traffic throughout the day. Because Lee Street also serves as a freight route, the noise level from semi-trucks can be high during regular business hours. Additionally, the MARTA heavy rail line provides a source of noise throughout business hours along the North-South corridor of Lee and Whitehall Streets. Through the strategic implementation of landscape features and urban design, these problems can be mitigated—at least in part—to create a more pleasurable and secure experience for pedestrians.

The U.S. Environmental Protection Agency prescribes thresholds of specific pollutants in the air under the authority of the Clean Air Act. Fulton County is designated as a county of non-attainment according to the National Ambient Air Quality Standards (NAAQS), being high in Particulate Matter (PM), Carbon Dioxide (CO₂), and Sulfur Dioxide (SO₂). The West End is close to Atlanta’s downtown and I-20, resulting in high air pollution levels. Though this

problem must be addressed at a macro-level, heavy traffic volume of mobile-source pollutants can be reduced or eliminated to improve air quality. Specifically, re-routing semi-trucks off of Lee Street would greatly reduce diesel exhaust for pedestrians. Such an initiative that would need support from crucial agencies such as the Atlanta Regional Commission and the Georgia Department of Transportation.

Health Assessment: NPU-T

Georgia Institute of Technology's Center for Geographic Information Systems (CGIS) has conducted extensive research to map specific indicators in the built environment, and their implications for public health. The information is gathered from the City of Atlanta's 2010 Census Summary Report, and is organized by NPU group. NPU-T includes the West End, Westview, and the Atlanta University Center neighborhoods. The following attributes illustrate the condition of health for the entirety of NPU-T, but can give valuable insights for the West End community (for a detailed explanation of methodology, please visit http://www.cgis.gatech.edu/nqolh/NH_Index/).

Out of 25 NPUs, NPU-T ranks 12th in the overall Neighborhood Health Ranking. Notable subcategories include ranking 6th best in access to food (low percentages are good; high percentages indicate more of the population is disconnected from healthy food), but NPU-T also comes in last in terms of morbidity (prevalence of illness) across the city, being particularly high in hypertensive heart disease (HHD). These metrics show that the West End is in the median zone relative to other neighborhoods, but certainly also show that more work can be done to improve the quality of health for the West End community, specifically in the morbidity category.

Neighborhood Health Ranking	12
Physical Activity Ranking	6
Walkability Score (out of 100 pts)	61
Nutrition Ranking	6
Low Food Access (%)	1.3%
Mortality Ranking	15
YPLL 75 rate LQ	1.6
Morbidity Ranking	25
Diabetes LQ	1.54
HHD LQ	64.18
Esophageal Cancer LQ	2.33
Uterine Cancer LQ	5.71
Kidney Cancer LQ	0.06

Table 2: NPU-T Health Assessment Scorecard.

Notes regarding Table 2:

Rankings are out of 25 Atlanta-wide NPUs.

Walkability is defined as condition and connection of sidewalks.

Low Food Access measured by the percent of the population without a vehicle that is over one mile from a grocery store.

Years of Potential Life Lost (YPLL) 75 is the deviation of the population's average age of death from a 75 year life span.

Location Quotient (LQ) of health indicators are composite scores compared city wide.

Hypertensive Heart Disease (HHD)



Figure 23: Tree Coverage in the West End Residential District (on Gordon Place looking towards Oglethorpe Avenue)



Figure 24: West End Mall Parking Lot Demonstrating the lack of Tree Coverage in the Business District



Housing and Community Development

Overview

Metro trends suggesting the re-urbanization of Atlanta combined with the West End's existing assets and proximity to the central business district indicate a possible shift in the study area's housing market (including an increase in rents, property values and the number of housing sales). Additionally, the West End Studio has proposed several multi-million dollar public/private projects that, if instituted, will most likely increase economic activity and substantially impact long-term housing and rental values. Recognizing the potential market pressures and the inevitability of rising housing costs within the study area, the studio has explored opportunities to maintain a vibrant community by preserving some affordability within the housing market. (Youngblood, 2003) The following is a brief analysis of the West End housing market and possible opportunities for addressing the impacts of gentrification while fostering a healthy, mixed-income environment for private investment and economic growth.

The West End Community

The West End is strategically located on the southwestern portion of Atlanta, sandwiched between the Atlanta Central Business District and the new Falcons stadium project to the north and the Fort McPherson proposed redevelopment project to the South (See Appendix A). The neighborhood

contains a mixture of newer multi-family units, live-work lofts, and historic single family homes that are relatively affordable compared to other similarly situated historic neighborhoods (e.g., Grant Park and Kirkwood's historic housing stock). Additionally, new public and private projects, such as the Atlanta Beltline and the redevelopment of the Candler-Smith Warehouse, have begun to shed light on the West End as a desirable, in-town neighborhood.

Currently, housing information from the study area indicates a significant gap between median household income and both median housing values and rents. In particular, information for Census Tracts 41 & 42, where the majority of the single-family housing stock is located, demonstrates an unfavorable affordable housing market for those with annual incomes near the median household income threshold for the area. Figures 25 and 26 show the price-to-income and rent-to-income percentage for Census Tracts 41 & 42 compared to standard thresholds for affordability (based on 2008-2012 ACS 5-Year Estimates). While Figure 26 shows that rents are currently much higher (40.11% and 43.54% respectively) than the 33% threshold for maintaining affordable rental options within the market, median housing values indicate that homeownership opportunities may already be out-of-reach for many residents. For example, for residents in Census Tract 42 to have the ability to afford a home at the median house value level (\$195,000),

they would need a median household income of \$78,000. Finally, Figure 27 maps the past 6 months of sales in the study area. According to Zillow, property sales have ranged from \$60,000 - \$195,000. Several of the current sales (in red) are on the market near \$160,000 - \$190,000 and may encompass homes that have been rehabilitated in the past few years.

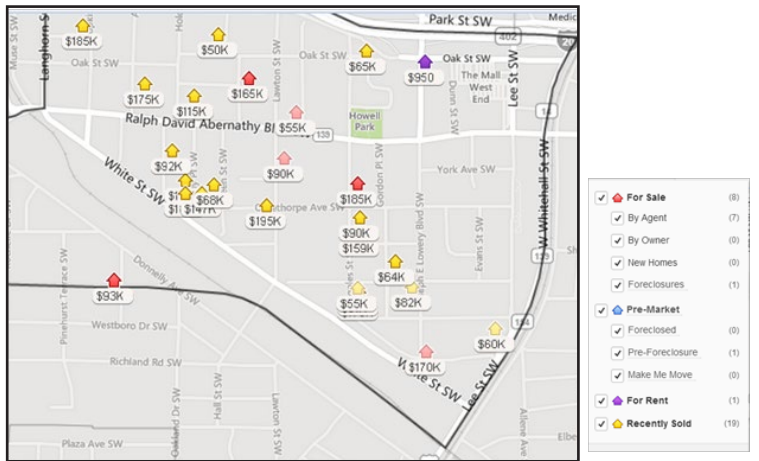


Figure 27: Map of the sales in the West End Study Area for the past 6 months (November 22, 2013 – April 22, 2014) Source: Zillow

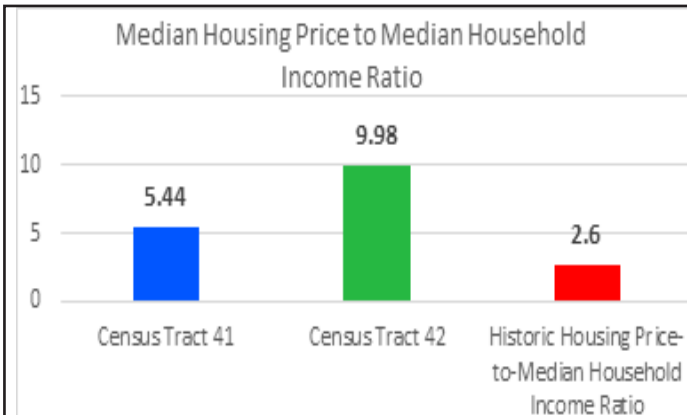


Figure 25: Median Housing Price to Median Household Income Ratio for Census Tracts 41 & 42-

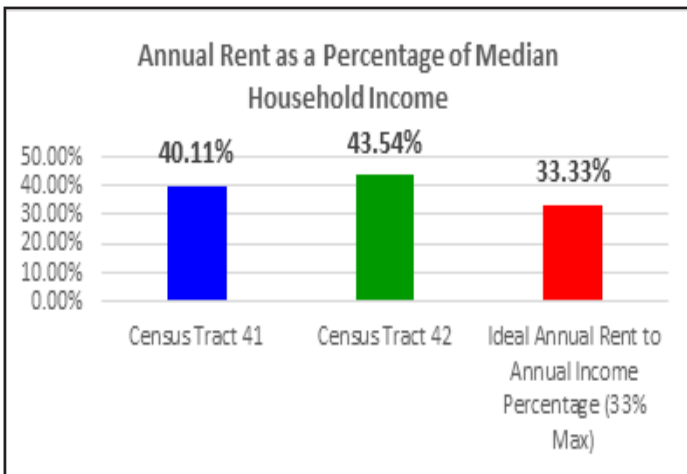


Figure 26: Annual Rent as a Percentage of Annual Median Household Income for Census Tracts 41 & 42

Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

Below is a brief SWOT analysis that focuses on the current state of the study area’s housing stock (both single-family and multi-family residential and rental units).

Strengths

- The West End study area is located within the Beltline Affordable Housing Trust Fund (BAHTF), which provides a 15% of net bond proceeds dedicated to the trust fund through TAD funding. (Beltline)
- For rental affordable housing: the ABAHTF recommends an income eligibility ceiling for affordable rental housing at 60% of AMI (2013 - \$39,780). Additionally, the fund encourages development housing targeted for households either at or below 30% AMI (2013 - \$19,900)
- For ownership affordable housing: the ABAHTF recommends an income eligibility cap at 100% AMI for households with 1-2 people (2013 - \$66,300)

- The BAHTF offers developer incentives and grants for multi-family and single-family developments that meet these requirements
- Many West End residential streets contain good single family housing stock (with historic homes) and beautiful tree lined canopies
- The West End already has established developers (e.g., Integral, HJ Russell) within the district that are familiar with the community (e.g., market analysis) and have shown an interest in building affordable housing (public and LIHTC)

Weaknesses

- Due to the West End's high vacancy rate (33.4%), the neighborhood may be vulnerable to increasing housing speculation and market pressures
- Cost of maintaining a home may be subject to the HD-20G historic overlay district
- High amount of renters (74%) may be subject to higher rental rates due to the lack of adequate rent control laws
- BAHTF AMI caps for single-family for sale units may be out-of-reach for the current median household income in the West End. Thus, current development incentives may not be an effective strategy for the West End's current affordable housing needs
- While recent developments may hopefully indicate a position change by the Fulton County Tax Commissioner regarding the office's relationship with the Fulton County/City of Atlanta Land Bank Authority (*see April 2014 AJC article regarding Arthur Ferdinand working with the Land Bank to waive the Historic District Development Corporation's (HDDC) delinquent property taxes on HDDC owned properties*), historically, the Tax Commissioner has not effectively worked together with the Land Bank to waive delinquent taxes on blighted properties and help jumpstart the revitalization process.

- For Community Land Trusts, local community development activities and overall neighborhood-redevelopment plans to flourish, the Tax Commissioner's office must continue to work with the Fulton County/ City of Atlanta Land Bank Authority to waive delinquent taxes on properties that could be used for affordable housing and community redevelopment strategies
- A strong relationship between the tax commissioner, local land bank and neighborhood land trust are a best practice for dealing with an efficient and effective property acquisition and affordable housing rehabilitation strategy
- The older single-family housing stock may require significant and costly rehabilitation (e.g., up-to-date insulation, historic window requirements) that may impact the affordability of the single-family rental and for sale markets
- Low income renters may be burdened with the high cost of heating and cooling an older, inefficient home leading to exorbitant utility costs
- Significant rehabilitation requirements (e.g., insulation, historic overlay rehabilitation requirements) may hinder community land trust affordable housing rehab-and-sell efforts

Opportunities

- Lots available for acquisition by a Community Land Trust or other affordable housing program/ strategy (LIHTC)
- Possibility to create a TOD component with affordable housing
- Attracting faculty, students and staff from the AUC and surrounding office/medical land uses (e.g., West End Medical Center)

Threats

- Increased value associated with the Beltline and proposed infrastructure projects may result in the lack of long-term affordable homeowner opportunities
 - These threats include possible substantial speculation & rapid gentrification (Dan Immergluck, July 2009)

Problem Statement

Given current re-urbanization trends in the Atlanta market, the neighborhood's current assets and intown location, the growth of property and rental values within the submarket and the West End Studio's proposed public infrastructure projects, how does the West End manage potential gentrification to maintain a vibrant, mixed-income community that is beneficial for private investors while maintaining future affordable housing opportunities?

Opportunities to Address the Problem

Talks with the West End community and private businesses indicate that the high level of vacancy and depressed property values should not be seen as a weakness; in fact, this should be seen as an opportunity. Given the proposals for redevelopment and revitalization outlined in this report, the West End is primed for investment now. While investment may lead to "gentrification" of the West End, this should not be seen as the threat many think. Gentrification, if expected by the neighborhood and if controlled properly, can actually provide many benefits to a neighborhood. For example, gentrification can provide diversity of economic and social classes, improve quality of life, and limit the downside when the current upward cycle ends. However, if a neighborhood fails to limit the impacts of gentrification, it can result in large amount of resident displacement. A few of the tools that communities can use to limit the negative aspects of gentrification are

Community Land Trusts, scattered site LIHTC, and Deed Restricted housing. Through the use of these tools, communities can provide a mechanism for those most vulnerable to rising property values a way to stay in their neighborhood if they desire.

Community Land Trusts

A CLT is a dual ownership model of property: one party holds the deed to a parcel of land; another party holds the deed to a residential building located upon that land. (Davis, 2006) Under the analogy of property as a "bundle of sticks", a typical purchase of a piece of property conveys the full "bundle of sticks" to the purchaser. But, under a CLT model of ownership some of the property rights are severed from the "bundle of sticks" because the full property is not being conveyed. The CLT holds the land in perpetuity and provides the owner of the building with exclusive use of the land. (Davis, 2006) This land is typically conveyed to the property owner through a ninety-nine year ground lease (which is renewable and inheritable). This model allows the CLT to take a portion of the housing stock out of the local real estate market and capture the equity gain for community benefit rather than the individual property owner. (Thomas, 2013) By capturing the gain for the community, the CLT can help preserve affordability and stabilize the neighborhood if it can acquire enough properties.

The basic model for purchasing or securing affordable housing is (Pastel, 1990):

Step 1: A community land trust purchases land on the open market within a designated community. The goal is to buy land at bargain prices to ensure affordability and the maximum use of funds.

Step 2: Once the homes meet the CLT's quality standards, the home structures are then either sold or rented to individuals who meet their affordable housing resident requirements.

The homes are sold as little above the cost to rehabilitate or build as possible.

Step 3: A ground lease (usually for 99 years) is executed simultaneously for a nominal value and governs the relationship between the CLT and the residents. The CLT retains title to the land and the home owner gains title to the house.

Step 4: When the resident decides to sell the property, the ground lease provisions usually stipulate a restriction on the sale of the home, such as the CLT having the first right of refusal, to ensure that the home stays affordable and outside of the free market.

Step 5: Instead of getting the entire equity from the sale (equity = sale price – purchase price – selling costs – remaining debt), the resident gets a limited amount of equity based on a formula stipulated in the ground lease.

While the basic model for acquisition is relatively simple, the strategy for targeting and purchasing properties by a CLT, and the amount of property that can be acquired by a CLT, can vary greatly from CLT to CLT. The variation in the capabilities of a CLT can likely be attributed to the availability of resources and the capital available to a CLT.

There are many different roles that CLTs can play in their communities. Further, there are many different strategies CLTs can use to acquire and develop properties within the community. The strategies used to acquire and develop properties by a CLT will vary depending on what acquisition tools are currently allowed in the jurisdiction, and the support the local jurisdiction can give to the CLT. The basic strategies of acquisition are: fee simple acquisition from Land Banks and property purchases; negotiations with current residents to donate their land to the CLT; partnerships with developers; and donations from banks or other nonprofits. Some of the money available to purchase property may come from

public and private grants, nonprofit funds, and donations to the nonprofit.

As for the development of the land once acquired, some CLTs assume major responsibility for the comprehensive redevelopment of a targeted locale; other CLTs may take sole responsibility for developing, marketing, and managing many types and tenures of housing; and some may leave most of these tasks to others, and confine their effort to assembling land, leasing land, and preserving the affordability of any housing located upon it. (Davis, 2006) "Between the extremes of the CLT-as-developer and the CLT-as steward lies a variety of roles, with every CLT deciding for itself what is should do and can do, given its mission, constituency, and capacity." (Davis, 2006)

Low Income Housing Tax Credits

Our research and talks with housing scholars suggests that in addition to traditional Low-Income Housing Tax Credits (LIHTC) for multi-family residential, LIHTC are also being used for scattered site housing. (Immergluck, 2014); (Cummings & DiPasquale, 1998) Recent changes to the Georgia Department of Community Affairs' Qualification Allocation Plan (QAP) indicate an interest and willingness to try and use LIHTC for single-family, scattered sight housing in Atlanta neighborhoods. (Kimura, 2012) Loosening the restrictions for scattered-site housing was a response to the state's recent foreclosure crisis and an attempt to promote the rehabilitation of vacant single-family units and public/private community revitalization. (Kimura, 2012) Seeing the potential in this new opportunity, the Department of Community Affairs awarded an annual \$950,000 allocation of low income tax credits for Columbia Residential along with Summech Community Development Corporation to develop a project that combines traditional new multi-family LIHTC development with scattered site single-family, LIHTC rehabilitated housing in the Summerhill neighborhood. (Immergluck, 2014)

(Khalil, 2014) Additionally, this new affordable housing opportunity provides on-going classes for residents on budgeting, housekeeping and ownership skills through Summech CDC. (Khalil, 2014) Finally, once the LIHTC 15-year compliance period is satisfied, there is an opportunity for the homes to be sold low and moderate income households that qualify for a mortgage. (Khalil, 2014)

LIHTC is a prominent federal program that subsidizes the construction and rehabilitation of low-income rental housing. (Kimura, 2014) Each year, states are authorized \$1.25 to \$1.75 per resident in tax credits, which the state then allocates to projects. (Kimura, 2014) Developers then bid for credits subject to requirements for projects outlined in the state's QAP. (NDC, 2006) Further, within each state, qualified non-profit organizations are entitled to at least 10% of the tax credits. (DCA, 2014) LIHTC developments tend to be complex, but a basic overview of the LIHTC requirements are as follows:

- The maximum amount of credits that a project may receive depends on the type and cost of development, the percentage of low-income units involved, and the building's location. For new construction and rehabilitation, the tax credit rate is approximately 9% per year over ten years. For building acquisition, minor rehabilitation, and federally subsidized buildings receiving below-market rate loans, the building can qualify for a 4% per year credit. Further, a project receiving tax credits must qualify as low-income each year of the 15- to 30-year compliance period or risk recapture of some of the credits. To qualify, a building must meet one of two tests concerning rents and tenant incomes:
- 20% or more of the residential units are both rent-restricted and occupied by individuals with income 50% or less of the area median gross income (AMI), or

- 40% or more of the residential units are both rent-restricted and occupied by individuals with incomes 60% or less of the AMI. (DCA, 2014)

Because LIHTC developments are complex and often built by niche developers, they can pose special risks. One of these risks is management of the property. LIHTC projects may serve special-needs populations that require substantial social services. (Cummings & DiPasquale, 1998) Further, tax-credit projects must be managed to maintain the required number of income-eligible tenants and to ensure that the appropriate documents are filed and kept current. (Cummings & DiPasquale, 1998) Scattered site housing potentially makes the management risk even higher, if simply because the tax credit housing units are dispersed throughout a neighborhood and thus not as easy to monitor and maintain. (Cummings & DiPasquale, 1998)

Deed-Restricted Homes

Another potential tool is Deed-Restricted Housing. Deed-restricted homes encompass a range of housing. The type of housing subject to deed-restrictions may include detached houses, attached duplexes, row houses, townhouses, and condominiums. (Davis, 2006) Unlike the CLT model, the occupants of deed-restricted homes have ownership of both the land and the building. But, similar to the CLT, the owner-occupant of deed-restricted housing foregoes some of the "bundle of sticks". For example,

"[T]he owners of deed-restricted houses have exclusive use of their property, but they are prevented from using it for anything other than their primary residence. They have the right to resell their property, but they are constrained from conveying it to whomever they wish or for whatever price the market will bear. They may improve their property, mortgage their property, or bequeath their property, but there are usually contractual constraints on these

ownership rights as well.” (Davis, 2006)

The mechanism through which these contractual constraints are typically imposed is an affordability covenant appended to the homeowner’s deed. (Davis, 2006) This covenant would require the owner-occupant to resell the property to someone from a specified pool of income-eligible buyers for a specified, formula-determined price. (Davis, 2006) This covenant may also contain a right of first refusal for the nonprofit. (Davis, 2006)

Land Trust Collaborative

Finally, a collaborative model of Community Land Trusts may enable smaller, community based land trusts to gain access to more resources and capital. This access is important because of the high costs associated with acquiring a critical mass of properties necessary to stabilize the neighborhood. Further, it may also provide a neighborhood CLT with resources capable of lowering administrative costs (an expense that can take up a large percentage of a small organization’s budget).

In Atlanta, a Community Land Trust Collaborative exists. The Atlanta Land Trust Collaborative (ALTC) works by combining neighborhood-based, resident-controlled Community Land Trusts (CLTs), with the

ALTC. (Atlanta Land Trust Collaborative, 2014) The ALTC functions as a “Central Server” organization that can incubate and support the development and operation of permanently affordable housing initiatives by independent non-profit CLTs, along the Beltline and throughout the City. The ALTC hopes to raise awareness of, advocate for, and implement neighborhood based CLTs. (Atlanta Land Trust Collaborative, 2014)

A potential benefit of the collaborative model for a community is the opportunity to have an organization with the financial resources and potential connections necessary to pay lobbyist and advocate for stronger tax lien foreclosures by the City of Atlanta and more property acquisition by the Atlanta Land Bank. This model may also provide a community with financial backing that would allow them to negotiate for properties from banks or the National Community Stabilization Trust.

Footnotes

The price-to-income ratio is based on median household income and median housing values from the American Community Survey 2008 -2012 5-year estimates. The price-to-income ratio is a simple method for determining the “relative expense of a home for a typical household.” (The price-to-income ratio is calculated as follows: (median housing value/ median household income).

²*Information and map was taken from Zillow.com and includes foreclosures, multi-family, vacant land, and single family sales for the past 6 months (November 22, 2013 – April 22, 2014)*

³*AMI percentages represent 2013 HUD Income Limits. BeltLine affordable housing targets were taken from: http://beltline.org/wp-content/uploads/2012/04/BeltLine-Affordable-Housing-Advisory-Board_2010-Annual-Briefing-Presentation.pdf*

⁴*Fee simple acquisition from the purchase of the property may originate from a homeowner, or from a foreclosure sale.*

⁵*In 2011, Georgia had the fourth-highest foreclosure rate in the nation with 1 in 37 homes filing for foreclosure. Id.*

HISTORIC

WEST



WALK



Economic Redevelopment and Revitalization of Business District

Overview

Initial research focusing on historical and future trends indicates that the West End's local economy appears to be undergoing a critical phase. Although the West End has several high grossing commercial businesses, the historic Atlanta University Center, and budding diverse industries, the relatively low median household income for the study area demonstrates that there still is a lack of economic opportunities for several of the neighborhood's residents. Recognizing this economic gap, the studio has identified several opportunities to enhance the local economy's strengths while also exploring strategies to incrementally grow emerging industries and engines for economic growth.

Problem Statement

Given the current state of the local economy, potential opportunities for revitalizing the mall location, current and potential linkages with surrounding institution and commercial partners, and local economic industry trends, what are economic development opportunities that could possibly spur long-term, sustainable growth in the West End neighborhood?

Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

Strengths

- The neighborhood contains a diverse mix of historic assets, including architecturally-significant homes, cultural landmarks, and the Atlanta University Center
- The commercial business district boasts

several high-performing businesses, including a high revenue grossing CVS Pharmacy and the Mall at West End, which has an estimated 90% occupancy rate

- The neighborhood contains several major employers & industries, including the Metropolitan live/work complex, the West End Medical Center, and the Atlanta University Center
- West End has several organizations who actively promote sustainable human resource development strategies (i.e., workforce development and increasing educational opportunities)

Weaknesses

- There is a lack of a cohesive commercial environment along RDA & Lee Street (the main commercial complex on RDA-between Evans Street and Lee Street currently has 65% occupancy)
- The mall's antiquated exterior wall faces RDA and currently includes relatively few exterior retail opportunities
- West End lacks a specific "identity" that defines the community's historic and cultural significance as well as its many assets

Opportunities

- The proposed community improvement district offers an opportunity to create a marketing/branding campaign (highlighting the West End's many assets)

- West End Medical Center & Morehouse School of Medicine offer an opportunity to grow the neighborhood's medical-related industry (e.g., primary care & medical research)
- The Metropolitan's growing urban, light industrial base provides an opportunity to create a hardware/light industrial incubator that fosters small business opportunities. The Metropolitan warehouse could serve as a long-term destination, once start-up businesses outgrow the incubator space
- The West End's location (e.g., proximity to airport and central business district) and underutilized warehouses offer an opportunity to support several industries, including arts & entertainment, information technology, food processing and storage

Threats

- If the CID does not receive initial support (e.g., funding for the administrative cost gap, property owner buy-in), the CID may struggle in its initial phases
- West End may be battling a negative perception about its initial viability as a commercial destination
- Similar to the potential for accelerated gentrification in the housing market, recommended public/private infrastructure projects may cause commercial rents to significantly increase and possibly make small business opportunities unattainable for potential entrepreneurs within the community
- The merger of Brown and Kennedy Middle School is short-sighted: its assumptions about continued declining populations around each school fly in the face of what's actually going on, threatening the viability of repopulating the neighborhoods with mixed-income families for whom high quality public education will be vital

Based on the SWOT analysis and talking with the representatives from the Atlanta University Center, West End Merchants Coalition and local real estate developers, the studio has identified several opportunities for spurring investment and economic growth in the West End. These opportunities include incrementally redeveloping the Mall at West End into a mixed-use economic center; supporting a West End Community Improvement District as a driver for public/private partnerships and funding; leveraging existing opportunities and relationships with AUC schools to grow medical-related services and office space, strategically capitalizing on emerging industries by providing ancillary services and incubators, expanding human resource development opportunities, and creating a small business strategy that includes a pop-up network to fill vacant retail space along the commercial corridors (i.e., Lowery Boulevard, RDA, Lee Street, and Oak Street).

Mall at West End Multi-Phase Redevelopment Strategy

After researching the current economic conditions in and around the Mall at West End as well as the potential for future redevelopment and linkages to surrounding institutional and office space uses, there is a significant opportunity to redevelop the mall and realize this property's economic potential. The goal is to create a plan that fosters a mixed-use, multi-phase development project that better serves the West End community and offers a destination for surrounding communities as well as local residents and AUC faculty, students and staff.

Analysis of Current Conditions

The first step in the development process is to conduct a brief analysis of existing conditions in and around the Mall at West End location. This analysis was conducted after touring the Mall at West End location, locating available public commercial data and reviewing its initial history and layout with private real estate developers, local community advocates, and members of the

West End Merchant Coalition. The following is an assessment that defines the central problem related to the Mall at West End site and provides a brief synopsis of the existing conditions that helped inform the proposed redevelopment plan.

Exploring the Pivotal Role of the West End Mall Property

Given the current economic condition of the West End commercial business district and emerging industries; the current configuration of the Mall at West End and the surrounding commercial corridors along Oak Street, Lee Street, and Ralph David Abernathy Boulevard; the current neighborhood and Atlanta trends for multi-family development; and existing institutional and medical-related office uses; what are opportunities for incrementally redeveloping the Mall at West End into an economic hub for the West End community?

Analysis of Current Conditions

Economy

- **Major Employment Centers:** While the West End has several small businesses along its commercial corridors, there are four major employment centers, each representing different economic industries.
 - **The Atlanta University Center:** Consists of Morehouse College, Spelman College, Clark Atlanta University, and Morehouse School of Medicine. The university system's institutions contain an estimated 8000 students with significant economic buying power.
 - **Mall at West End:** The Mall at West End is a 151,000 sq. ft. mall with an estimated 90% occupancy rate. The mall is occupied by a few higher-end, credit-worthy national retail chains such as Footlocker and Athlete's Foot. The majority of the mall, however, is made up of smaller, local mom and pop stores.

- **The Metropolitan:** The Metropolitan is an innovative, adaptive reuse complex that provides flexible residential, commercial, and combination live/work loft space. The mixed-use campus houses a burgeoning offering of light industrial small businesses that focus on everything from Land Rover specific restoration services to custom woodworking and design. The Metropolitan appears to be fostering a strong entrepreneurial environment combined with non-traditional industrial residential spaces.
- **The West End Medical Center:** The West End Medical Center is a not-for-profit, federally funded community health center (West End Medical Center Website). The newly renovated 41,000 sq. ft. center has been a fixture in the West End community since 1976 and currently serves 26,000 patients annually. (WEMC)

Property and Environs

- **Location:** The mall location is situated in the eastern portion of the West End commercial business district and serves as the retail hub for the community. The square lot is surrounded by commercial business corridors on three sides (Oak Street, RDA and Lee Street) with the Skylofts mixed-use complex facing the eastern side. The sidewalk on the RDA side is being updated with historic cobblestones and wider sidewalks that highlight the neighborhood's historic roots. Additionally, the mall is perfectly situated to take advantage of the studio's proposed improvements along Lee Street and is within a one minute walking distance to the West End Marta Station.
- **Environmental Considerations:** A long-term concern for the project may be the potential remediation issues surrounding redevelopment near the Exxon gas station on the corner of Lee and Oak Street. Remediation of a gas station brownfield can

present several complex environmental and legal issues. Specifically, potential petroleum leaks from underground storage tanks present the most significant environmental liability. (Murphy & Crystal, 2009) Considering this potential issue, the “highest and best use” for this site might be to keep the site as a gas station that is better integrated into the proposed redevelopment and is reconfigured to allow better ingress and egress along Lee Street and Oak Street.

- Additionally, the lack of tree coverage in the current mall set-up has helped form an urban “heat island” that impacts the quality of life for residents and customers. Any new development would have to be cognizant of this effect and incorporate development strategies that improve the quality of life for residents, future employers and retail customers.
- **Political Considerations:** The West End contains several community organizations within City Council District #4, including the West End Neighborhood Association, the West End Merchant’s Coalition, Neighborhood Planning Unit – T, a potential Community Improvement District, and the Atlanta University Center Consortium. While these organizations and political entities have differing goals and perspectives regarding the economic revitalization of the West End community, there seems to be a consensus regarding the importance of fostering greater economic opportunities for the community’s residents.
- **Legal Considerations:** Although the new development project has proposed implementing several best practices that will increase opportunities for open green spaces, pedestrian walkability and quality sustainable design, new construction will have to comply with both the SPI-21 district and the BeltLine Overlay district design and land use requirements. Additionally,

despite not falling within the HD-20G historic guidelines for residential properties in the West End, developers should be aware of building and land design proposals that may stray too far from the neighborhood’s history and historic design language.

Market Analysis

- **Future Opportunities and Trends:** Talking with local developers and reviewing the Choice Neighborhood comprehensive plan proposal for the Atlanta University have given the impression that Morehouse College, Spelman College and Clark Atlanta University are currently focusing on an infill redevelopment strategies within the existing AUC boundaries rather than expanding South towards the West End. The Morehouse School of Medicine, however, appears to have maxed-out the space use of its current footprint and has little room to expand. Further, the medical school has several national centers and research institutes, including a national center for primary care, that focus on improving health disparities in the greater community. Due to national trends expanding access to healthcare as well as the need to address poor health trends within the NPU-T district, there may be an opportunity and a need for the school to expand its educational, research and primary care medical office space into the new development site.
- **Current Supply of Office and Retail Space:** Besides the aforementioned Metropolitan mixed-use development, there is very little office space in the area. Retail space uses are comprised of strip retail centers on Lowery Boulevard, Oak Street and Lee Street (surrounding the mall location). In addition, commercial retail along Ralph David Abernathy is currently undergoing a transitional period with several vacant units adjacent to the mall.

- **Existing Affordable Housing Units:** In talking with community residents, advocates, and developers about the current stock of affordable housing in West End, a concern that was raised was the possibility that new development would bring more affordable housing units within the market without consideration for market-rate units. The result may be a residential rental and housing stock that is imbalanced (in this instance too many affordable housing units within a concentrated area), which could ultimately stunt the goal of creating a vibrant, mixed-income community in the central West End.
- **Current Major Construction Projects:** The Ashley Collegetown development is a multi-phase, mixed-use (and mixed-income) project developed by Integral Consulting in conjunction with the Atlanta Housing Authority. The development offers a live, work and play environment with a proposed mixture of single and multi-family residential, green space, senior housing and commercial retail land uses. In addition to neighborhood residents, the project is targeting college students, faculty and staff from the nearby Atlanta University Center.
- **Residential Rental Market Trends:** The following is a brief analysis of existing rents

per square foot for rental apartments and condominiums within the West End study area. This analysis includes a rough estimate of the lowest estimated price listed for rental and sale price values. *Note: Residential rental and residential sale price/sq. ft. were based on publically available research (see Table 3)*

Project Analysis

Current Owners Goals: The studio was unable to contact the current owners of the Mall at West End, the HT Group, LLC, and thus could not ascertain the developer’s goals or willingness to sell the property. Currently the mall has an estimated 90% occupancy rate, and depending on current revenue, the owners may not want to quickly dispose of the property. While HT Group may not be willing to sell the property outright, there may be an opportunity for the current owners to partner with an established real estate developer who has experience building mixed-use, multi-phase projects. In this partnership, HT Group could serve as a junior partner for the redevelopment project with the value of the land serving as their equity stake.

Residential Rental \$/Sq. Ft.			
Complex	1 Bedroom/1 bath	2 Bedroom/1 bath	3 bedroom/2 bath (or 2.5 bath if offered)
The Metropolitan	N/A	\$1.05	N/A
Ashley College Town (LIHTC) & Market-Rate	\$1.02	\$0.81	\$0.85
Oglethorpe (LIHTC) & Market-Rate	\$1.19	\$0.95	N/A
Ashely Terrace (LIHTC) & Market-Rate	\$1.03	\$0.86	N/A
Residential Condos \$/Sq. Ft.			
Complex	1 Bedroom	2 Bedroom	3 bedroom
Skylofts	\$118.53	N/A	N/A

Table 3: Residential Market Trends in West End and Surrounding Areas

Redevelopment Plan

The Mall at West End represents an antiquated, sub-optimum commercial usage that fails to support the potential of the historic West End business district. Given the proximity to the AUC and to the MARTA West End Station, a denser, diverse, and less automobile oriented development pattern should replace the existing conditions. The scale of the site lends itself to a redevelopment pattern that would subdivide the existing block into multiple smaller blocks to be more cohesive with the surrounding block structure. Furthermore, this scale supports a development pattern that would evolve in several phases. To support the existing businesses at the Mall at West End, the original existing structure and its tenants could be left primarily intact during the execution of Phase I. This would provide an opportunity for the businesses to continue operations while new space, which is conducive to a walkable environment, is constructed. Existing businesses could be given rights of first refusal to relocate to newly developed spaces prior to the execution of latter phases, which would include the demolition of the Mall at West End. With various uses considered for development such as commercial, office, residential, and incubator, this would allow for the market demand to develop for the future phases, rather than a large-scale delivery of space that the West End market may not be ready to absorb.

Under this scenario, the first phase would constitute the northeast and east portion of the site, currently occupied by a gas station, quick service restaurant, and parking. While the gas station would most likely remain, there is an opportunity to reconfigure vehicle ingress and egress with an emphasis on curb appeal. Phase II would include the demolition of the food court appendage to the Mall at West End, with Phase III resulting in the complete demolition and redevelopment of the mall. The result could potentially be a more compact, economically diverse development. Figure 31 shows an example of the possible redevelopment phasing strategy.

Pro Forma Analysis

The following is a brief pro forma financial analysis for the multi-phase redevelopment of the Mall at West End Complex. The studio is proposing a 650,000 square foot live, work, play, exercise and Learn (mixed-use) complex which would serve as a destination for the AUC, West End residents and the surrounding communities. The redevelopment consists of three phases and includes opportunities for institutional, commercial, residential and community spaces (with both for sale and long-term rental options). Additionally, the studio also has proposed 186,000 sq. ft. of structured parking, and 109,712 sq. ft. of green space (for community events, festivals, general community use). Table 4 provides a brief synopsis of the

	Phase 1	Phase 2	Phase 3	Totals
Total Sq Ft (building)	390,000	47,000	213,000	650,000
Total Sq Ft of Parking	132,000	0	54,000	186,000
Total Sq Ft (greenspace)	4,356	101,000	4,356	109,712
Total Sq Ft (sidewalks)	19,080	12,712	12,720	44,512
Total Sq Ft (Pavement)	15,900	23,835	23,850	63,585

Table 4: Redevelopment Plan Square Footage Breakdown (Phases I, ii, & 3 and Total Breakdown)

overall square footage breakdown across the three phases. This analysis was provided to serve as an example of what could be placed on property and the potential return on investment for a multi-phase, mixed-use redevelopment strategy. See the Appendix for a more complete breakdown of the financial assumptions the studio used to conduct this analysis.

The studio is proposing a multi-phase redevelopment strategy that offers commercial, institutional, residential space as well as a community center (YMCA model). The community center was an important component, especially considering the need to address the aforementioned morbidity rates discussed in the Environmental section as well as the need to support educational opportunities (e.g., school-related summer camps and weekend programs) highlighted in this section.

- **Phase 1:** Residential (for sale), Commercial and Institutional Space
- **Phase 2:** YMCA Community Center
- **Phase 3:** Residential (for sale), Commercial and Institutional Space

is projected to be an estimated \$5,117,798 in year one. After factoring in debt service obligations, Before Tax Cash Flow (BTCF) is \$ 1,639,136. Additionally, the project yields a first year Cash-on-Cash return (annual BTCF/Total Cash Invested) of 15% with a healthy Debt Coverage Ratio (DCR) of 1.47.

Furthermore, while the pro forma indicates periods where the project will yield relatively low DCR during project implementation (especially when considering the construction of the YMCA and the lack of residential sale revenue in Phase 2), years 8 through 12 suggest that the project will ultimately yield healthy returns for the investor/developer. Additionally, return on investment is expected to be further enhanced by the many surrounding infrastructure projects the studio has suggested in other sections of this report. This realization also suggests something broader: holistically community development-driven real estate strategies will most likely require a longer term approach to investment than traditional, market-driven strategies (e.g., evaluating returns over a longer period of time rather than a 5-year holding period evaluation).

Expected Net Operating Income (NOI) for the project

Cash Flows			
Year	1	2	3
Income			
Rent (Commercial)	\$3,510,000.00	\$3,510,000.00	\$3,510,000.00
Rent (Institutional)	\$2,340,000.00	\$2,340,000.00	\$2,340,000.00
Rent (YMCA)	\$-	\$-	\$-
Residential Sale	\$2,383,290.00	\$2,979,112.50	\$595,822.50
Gross Potential Income	\$8,233,290.00	\$8,829,112.50	\$6,445,822.50
Less Vacancy Allowance (Commercial)	(\$1,053,000.00)	(\$631,800.00)	(\$631,800.00)
Less Vacancy Allowance (Institutional)	(\$468,000.00)	(\$117,000.00)	(\$117,000.00)
Expected Gross Income	\$6,712,290.00	\$8,080,312.50	\$5,697,022.50
Expenses			
Operating Expenses (Commercial)	\$702,000.00	\$716,040.00	\$730,360.80
Operating Expenses (Institutional)	\$624,000.00	\$636,480.00	\$649,209.60
Management	\$268,491.60	\$323,212.50	\$227,880.90
Total Expenses	\$1,594,491.60	\$1,675,732.50	\$1,607,451.30
Net Operating Income (NOI)	\$5,117,798.40	\$6,404,580.00	\$4,089,571.20
Less: Debt Service	(\$3,478,661.81)	(\$3,478,661.81)	(\$3,478,661.81)
Before Tax Cash Flow	\$1,639,136.59	\$2,925,918.19	\$610,909.39
Ratios			
Operating Expense	19%	19%	25%
Debt Coverage	1.47	1.84	1.18
Break Even Point	0.62	0.58	0.79
Free and Clear Return	10%	12%	8%
Cash-on-cash return	16%	29%	6%

Table 5: Proposed Residential Development Analysis Phase 1 (First Three Years Beginning in 2016)

Cash Flows				
Year	4	5	6	7
Income				
Rent (Commercial)	\$3,510,000.00	\$3,510,000.00	\$3,510,000.00	\$4,316,857.27
Rent (Institutional)	\$2,340,000.00	\$2,340,000.00	\$2,340,000.00	\$2,877,904.85
Rent (YMCA)	\$705,000.00	\$705,000.00	\$705,000.00	\$705,000.00
Residential Sale	\$ -	\$ -	\$ -	\$ -
Gross Potential Income	\$6,555,000.00	\$6,555,000.00	\$6,555,000.00	\$7,899,762.11
Less Vacancy Allowance (Commercial)	(\$631,800.00)	(\$631,800.00)	(\$631,800.00)	(\$777,034.31)
Less Vacancy Allowance (Institutional)	(\$117,000.00)	(\$117,000.00)	(\$117,000.00)	(\$143,895.24)
Expected Gross Income	\$ 5,806,200.00	\$ 5,806,200.00	\$ 5,806,200.00	\$ 6,978,832.56
Expenses				
Operating Expenses (Commercial)	\$744,968.02	\$759,867.38	\$775,064.72	\$790,566.02
Operating Expenses (Institutional)	\$850,193.79	\$867,197.67	\$884,541.62	\$902,232.45
Management	\$232,248.00	\$232,248.00	\$232,248.00	\$279,153.30
Total Expenses	\$1,827,409.81	\$1,859,313.04	\$1,891,854.35	\$1,971,951.77
Net Operating Income (NOI)	\$3,978,790.19	\$3,946,886.96	\$3,914,345.65	\$ 5,006,880.79
Less: Debt Service	(\$3,735,913.59)	(\$3,735,913.59)	(\$3,735,913.59)	(\$3,735,913.59)
Before Tax Cash Flow	\$242,876.60	\$210,973.36	\$178,432.06	\$ 1,270,967.20
Ratios				
Operating Expense	28%	28%	29%	25%
Debt Coverage	1.07	1.06	1.05	1.34
Break Even Point	0.85	0.85	0.86	0.72
Free and Clear Return	7%	7%	7%	9%
Cash-on-cash return	2%	2%	2%	12%

Table 6: Proposed Residential Development Analysis Phase 2 & 3 (Years 4 through 7)

Cash Flows					
Year	8	9	10	11	12
Income					
Rent (Commercial)	\$6,763,557.74	\$6,763,557.74	\$6,763,557.74	\$6,763,557.74	\$6,763,557.74
Rent (Institutional)	\$3,978,920.06	\$3,978,920.06	\$3,978,920.06	\$3,978,920.06	\$3,978,920.06
Rent (YMCA)	\$705,000.00	\$705,000.00	\$841,806.87	\$841,806.87	\$841,806.87
Residential Sale	\$1,868,973.32	\$3,114,955.54	\$1,245,982.22	\$ -	\$ -
Gross Potential Income	\$13,316,451.12	\$14,562,433.34	\$12,830,266.88	\$11,584,284.67	\$11,584,284.67
Less Vacancy Allowance (Commercial)	(\$1,690,889.43)	(\$1,352,711.55)	(\$1,217,440.39)	(\$1,217,440.39)	(\$1,217,440.39)
Less Vacancy Allowance (Institutional)	(\$596,838.01)	(\$596,838.01)	(\$198,946.00)	(\$198,946.00)	(\$198,946.00)
Expected Gross Income	\$11,028,723.68	\$12,612,883.78	\$11,413,880.49	\$10,167,898.27	\$10,167,898.27
Expenses					
Operating Expenses (Commercial)	\$1,232,377.34	\$1,257,024.89	\$1,282,165.38	\$1,307,808.69	\$1,333,964.86
Operating Expenses (Institutional)	\$1,175,877.10	\$1,199,394.64	\$1,223,382.54	\$1,247,850.19	\$1,272,807.19
Management	\$441,148.95	\$504,515.35	\$456,555.22	\$406,715.93	\$406,715.93
Total Expenses	\$2,849,403.39	\$2,960,934.88	\$2,962,103.14	\$2,962,374.81	\$3,013,487.99
Net Operating Income (NOI)	\$8,179,320.29	\$9,651,948.90	\$8,451,777.35	\$7,205,523.46	\$7,154,410.28
Less: Debt Service	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)
Before Tax Cash Flow	\$ 2,953,051.60	\$ 4,425,680.21	\$ 3,225,508.65	\$ 1,979,254.77	\$ 1,928,141.59
Ratios					
Operating Expense	21%	20%	23%	26%	26%
Debt Coverage	1.57	1.85	1.62	1.38	1.37
Break Even Point	0.61	0.56	0.64	0.71	0.71
Free and Clear Return	10%	12%	11%	9%	9%
Cash-on-cash return	20%	30%	22%	14%	13%

Table 7: Proposed Residential Development Analysis Phase 3 (Years 8 through 12)



Figure 28: Drawing of Redevelopment Alternative (on RDA looking North up Lee Street)

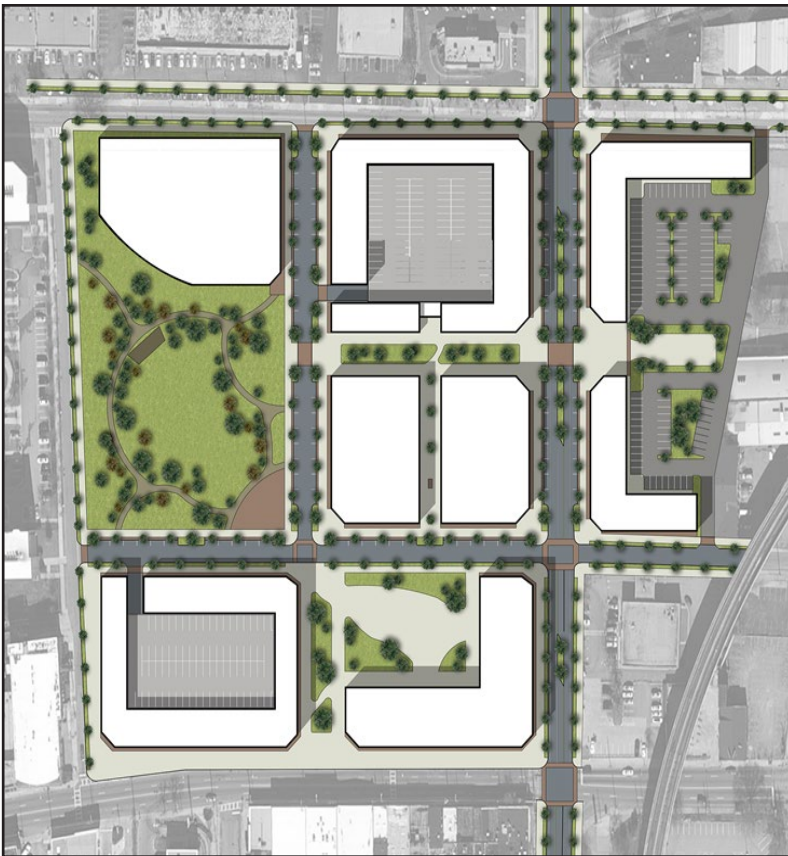


Figure 29: Rendering of Mall and Commercial District Redesign Investigation (with proposed Lee Streetscape Improvements and new Interior Pedestrian Walkways)

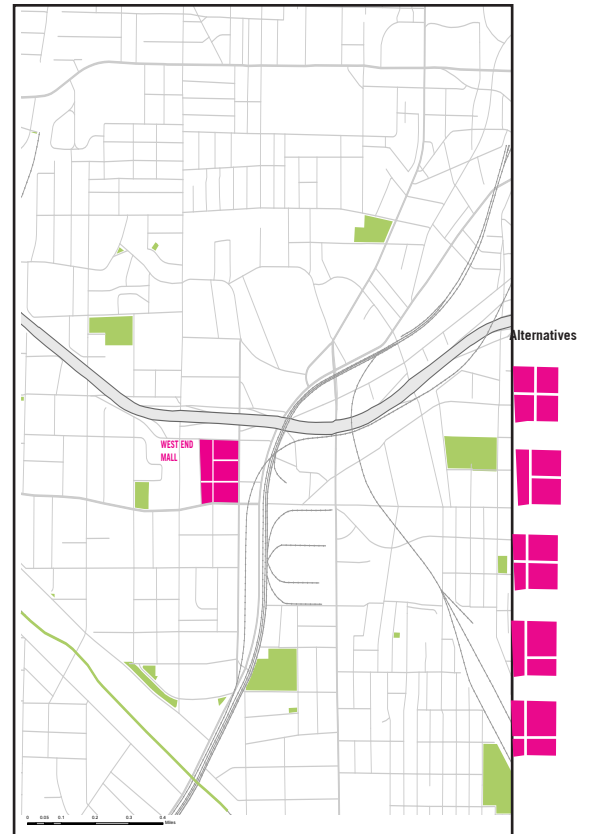
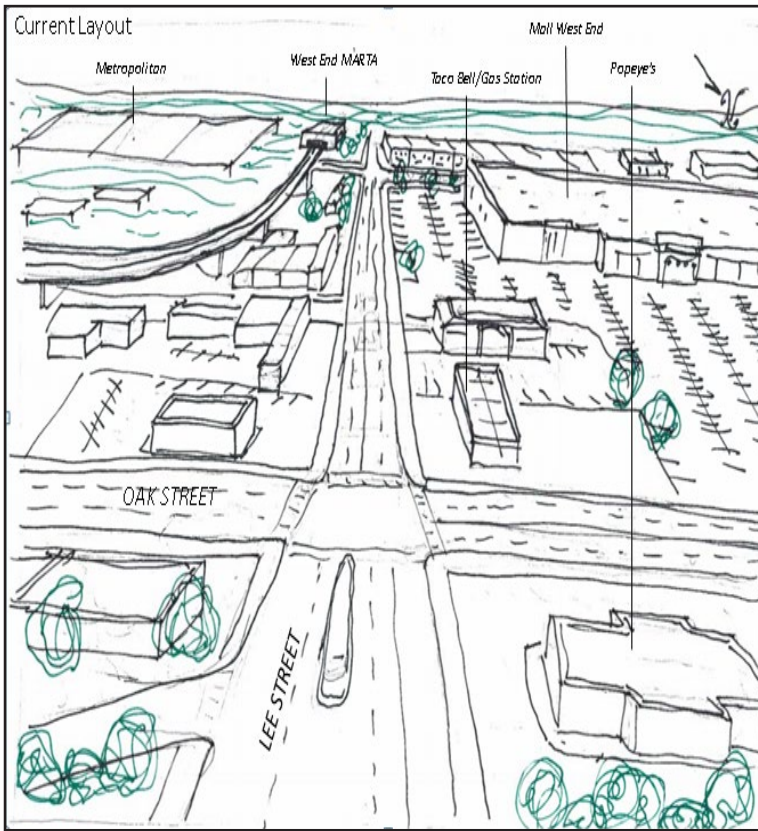
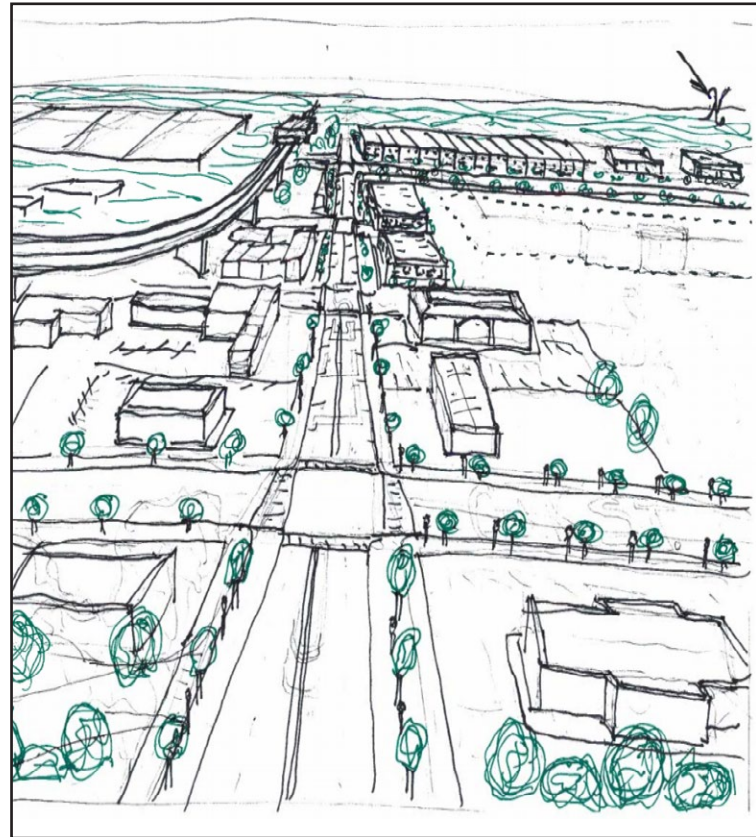


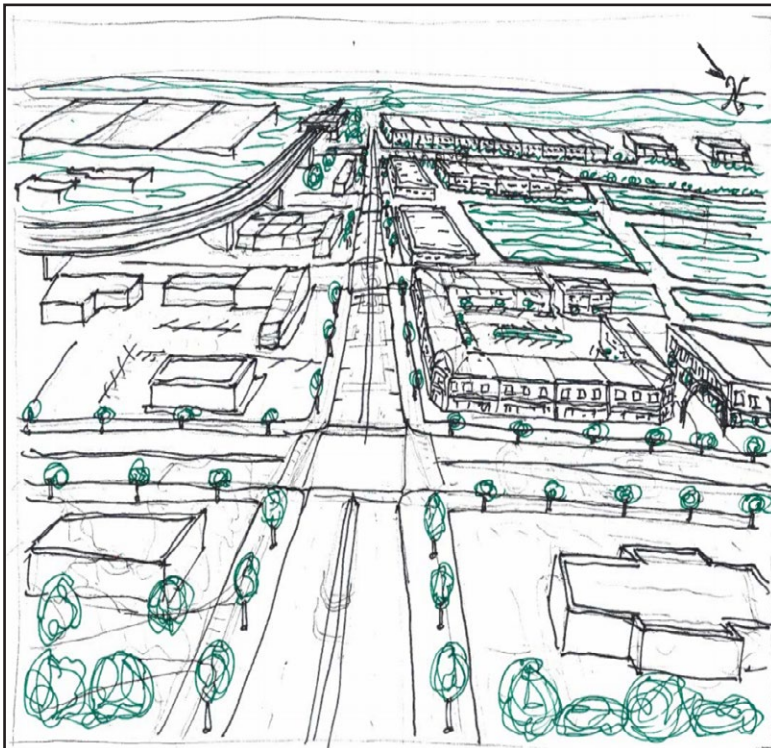
Figure 30: Commercial / Mixed Use District Investigation - Mall at West End Redevelopment to Attract TOD



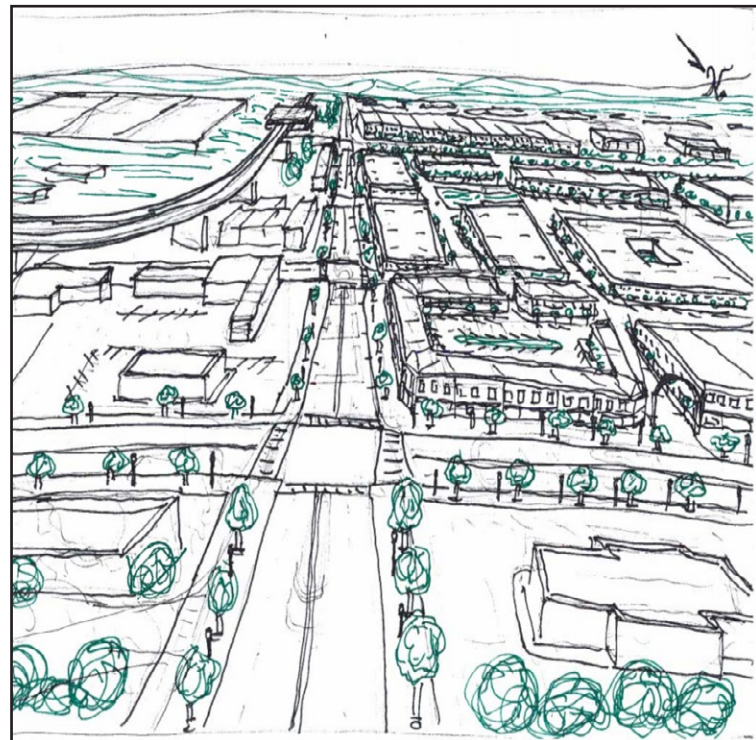
Current Layout of Business District (Lee Street facing South)



Phase 1: Streetscaping, phased mall deconstruction and development along Lee Street

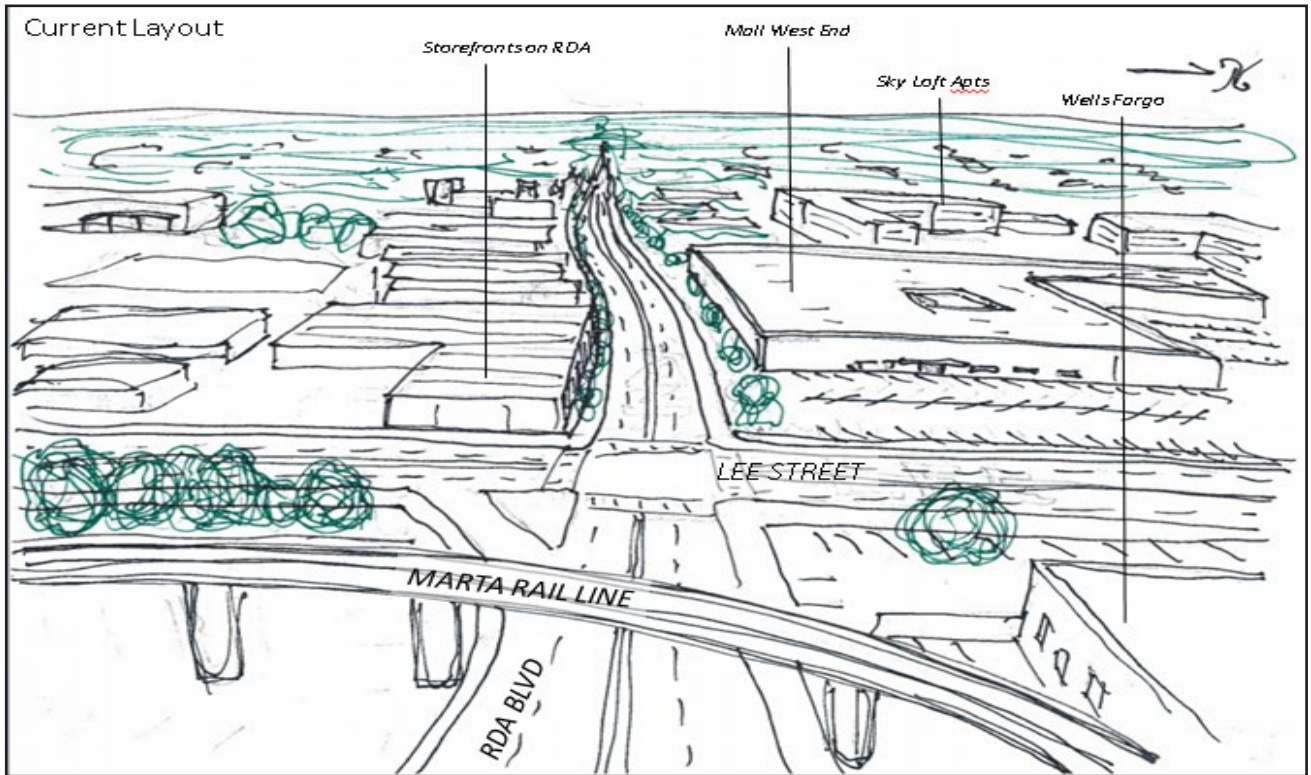


Phase 2: Parcel/Greenspace Construction, Development along Oak and Lee Street

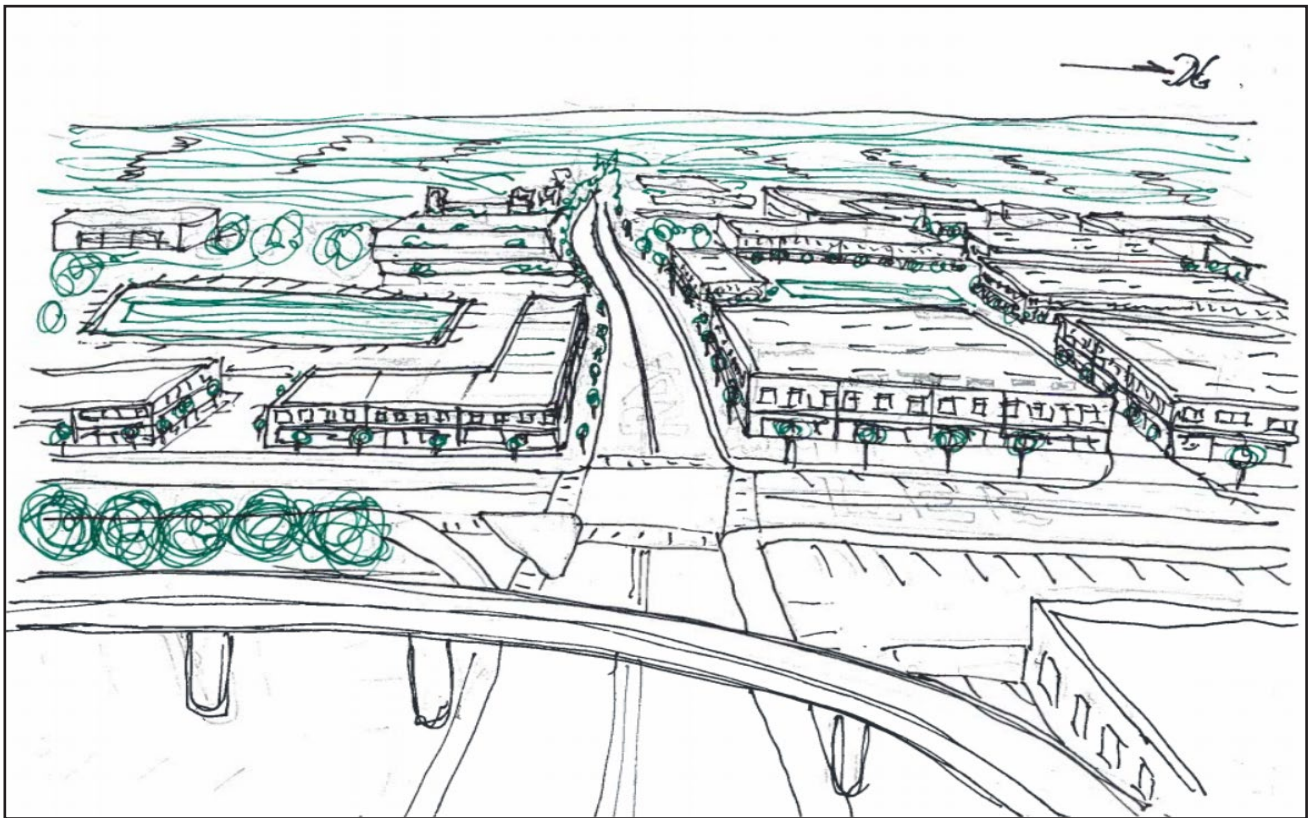


Phase 3: Interior Parcel Development

Figure 31: Phased Mall at West End Redevelopment Investigation



Current Transit Oriented-Development Configuration (RDA Boulevard facing West)



Proposed Transit Oriented-Development

Figure 32: TOD Concept Investigation for West End MARTA station

West End Incubators & Medical-Related Office Space: Growing Economic Opportunities in West End

The West End is in a prime location to support incubator space. The neighborhood is on the North-South MARTA transit line close to the Central Business district and most importantly, is close to the Atlanta University Center and Morehouse School of Medicine.

Depending on the available land footprint, the possible incubator industries, and the goals of the project, an incubator can be specific or multipurpose. Further, they are also usually structured as public-private partnerships to help maximize the many positive effects of the incubator experience (Infodev).

The AUC has several existing programs that could be enhanced via a natural partnership with an incubator, including the MBA program at Clark Atlanta University and the many medical research centers at the Morehouse School of Medicine. Both of these programs could be linked to a more specific incubator program. This type of incubator could probably mirror the StartX incubator space at Stanford University, in which the spaces and programs would be more targeted to specific industries. This focused structure can benefit by targeting specific grants and funding.

There may also be opportunities for Morehouse School of Medicine to expand its footprint into West End and specifically into the Mall at West End proposed redevelopment. This institutional expansion could include classroom, lab and community outreach space. Such expansion could pave the way for incubator space related specifically to medical IT, medical research and hardware. Additionally, the area could house an outpatient clinic, small start-up lab spaces, or spaces clinical trials (taking advantage of the institution's nationally accredited Primary Care Center). The West End Medical Center is also in this area, so medical-related incubator or clinic space makes sense. Research has shown that due to the aging of the Baby Boomer generation and the expansion of the Affordable Care Act,

there will be a greater demand for primary and outpatient care facilities. West End has the potential to position itself as a district catering to direct medical and medical-related ancillary services.

Furthermore, with the proximity of the Clark Atlanta Business Program and several business-related programs within the AUC, West End could also house a more general incubator, which would look more like the SPARK Boulder facility. The incubator could be weighted more towards students, but still offer spaces and services for a wide variety of companies and community members. Offerings could include copying and printing services as well as technical assistance.

Additionally, similar to the Oakland, CA precedent, the West End could also house hardware incubator space in some of the vacant industrial buildings where innovative developers are using hardware startup incubators to boost jobs and investment in blighted, industrial neighborhoods. (See Yoshitsugu, "Oakland developer plans incubator for hardware startups"). The idea is to adaptively reuse underutilized warehouses and industrial centers into large, affordable open space incubators for professional engineers, local entrepreneurs, and early stage startups to share resources, collaborate and develop their products (Yoshitsugu, 2013).

Finally, probably the most important element of an incubator space is that some entity (usually a university or affiliated group) must be in charge of managing it. This management includes everything from day-to-day staffing to long-term programming and plans.

Other Emerging Industries to Consider

In addition to the aforementioned hardware and medical-related opportunities in the West End, there appears to be a burgeoning arts and entertainment industry as well. The newly renovated Metropolitan live/work complex houses several small businesses and art spaces, including music recording studios, performing arts centers, commercial art galleries and visual

arts (digital media and content) workshops. Further, the state of Georgia and Atlanta, in particular, are aggressively courting the film and television production industry with financial incentives, production resources and professional support. The Metropolitan's existing arts and entertainment base, Atlanta's illustrious music history, and the vast opportunities for adaptive reuse of underutilized warehouses presents an opportunity to make the West End a hub for this vast and lucrative industry. Moreover, the West End's location offers an attractive home for this industry with easy access to several interstates (I-20, I-85, I-75, and I-285) and close proximity to the airport as well as the Central Business District (where several production companies have shot television and film scenes).

Additionally, Information Technology is another industry that metropolitan Atlanta is actively pursuing as part of their long-term economic development strategy. With more people beginning to move back into or stay within the city's diverse neighborhoods, there may be a future influx of established and start-up businesses following them as well (e.g., growing business districts in Midtown and West Midtown). The West End's underutilized warehouses and the Mall at West End may be a natural place for small-scale desktop support companies that provide technology support to these incoming businesses who cannot afford the financial overhead for an onsite IT facility. IT desktop support businesses could use West End's proximity to several business districts as a way to offer efficient remote and on-site hardware maintenance network, database management, and IT security assistance along with other technology needs.

Human Resource Development

While Holistic economic development strategies include maintaining and increasing affordable housing opportunities, the studio recognizes that affordable housing strategies address only a limited amount of the West End's total housing stock. Any affordable housing strategy must be supplemented by a broader human resource

development plan that focuses on long-term strategies that expands living wage careers as well as educational opportunities. These strategies are even more important considering the current low median household income (relative to Area Median Income) and the expected increase in market rental rates and housing prices due to the studio's proposed development projects.

Recent economic development theory has focused on two pathways for human resource development: the traditional view of workforce development and an emerging emphasis on growing and strengthening educational opportunities. (Blakely & Leigh, 2010, p. 297) While the studio focused primarily on the former, providing quality education opportunities is an important component for raising standards of living for all residents while also reducing overall inequality. (Blakely & Leigh, 2010, p. 314) Currently, there are several West End community organizations leading the charge for improving the quality of the K-12 school experience. The quality of the local public school system can directly impact both the earning potential of West End children as well as attract outside firms and industries who value a strong primary and secondary school system. (Blakely & Leigh, 2010, p. 314) Finally, one developing issue worth monitoring is the current list of Atlanta Public School closings in the communities surrounding the West End. In the upcoming years, the Atlanta Public School Board has slated Kennedy Middle School in the English Avenue/Vine City neighborhood for closing and the merging of the school's existing students with Brown Middle School in the West End. Among many West End education advocates, this merger raises concerns regarding class size, the allocation of resources (per child) and the quality of long-term educational opportunities for students in the local school system. *See Appendix for a brief overview of Education in the West End.*

Workforce development strategies have traditionally been the bedrock for traditional economic development strategies. Emerging industries and proposed new development

allow economic developers to link existing, local skill training and job-placement programs with shovel-ready construction projects, entry-level IT positions, and current arts and entertainment businesses. More importantly, the multiple construction projects and arts and entertainment opportunities highlighted in this report (and the current trajectory of these industries in the metropolitan region) could provide a pipeline of good paying careers with low barriers of entry (i.e., advanced degrees and extensive professional experience are not prerequisites). For example, local workforce development organizations could help develop a workforce plan that offers outreach, skills training, education and on-going support programs for green-related and building and construction jobs. These programs could prepare residents for job placement within the proposed multi-phase, multi-million dollar Mall at West End redevelopment project.

Further, the arts and entertainment industry offers several entry-level positions such as production assistants. The “Made in NY” Production Assistant Training program is another example of how local development workforce organizations worked with private industries (and the Mayor’s Office of Media and Entertainment) to provide low-income and unemployed residents with training and placement in film and television production.

Finally, IT help desk jobs are ideal entry-level positions into Information Technology because of the position’s low experience and educational requirements. (IT Career Finder) The position also can serve as gateway to more advanced, higher-paying careers such as network administrator, database administrator and IT security specialist.

Pop-Up to Permanent Shop Network for Commercial Business District

To supplement the short-term commercial development opportunities for the commercial district, the studio has identified a pop-up to permanent shop network as a strategy for leasing current economically dormant vacant spaces along RDA Boulevard and other commercial corridors adjacent to the Mall at West End

site. In addition, the network could help foster small business opportunities and assist the lease-up process in the new retail portion of the Phase 1 mall redevelopment proposal. This public/private partnership would involve a local economic development entity such as Invest Atlanta providing technical assistance and grant funding for up to six months of tenant rent within the network. The goal is to create network of potentially locally-owned small businesses that could pool their resources for collective marketing and hopefully become long-term fixtures within a revitalized community business district. Further, this network could be tailored to support businesses that “fill gaps” within the existing business district make-up and better address the diverse needs of the greater community. “See *Appendix*” for Oakland “Popup Hood” case study.

Atlanta University Center’s Role in West End Economic Revitalization

A 2007 comprehensive economic development strategy for the Atlanta University Center leadership identified the role of the colleges and universities in stimulating local economies in surrounding neighborhoods. (Angelou Economics, 2007, p. 10) The West End neighborhood, in particular, is an essential partner to the AUC, serving as the entry point for the south campuses from I-20 and Lee Street (e.g., coming north from Fort McPherson development).

Recently through the college system’s community development arm, the University Development Corporation (UCDC), the AUC has begun to engage community stakeholders regarding partnerships and economic development opportunities in the West End. For example, the UCDC has been heavily involved in the creation of the West End CID, seeing the importance of a competitive, pedestrian-friendly business district within walking distance for the AUC’s faculty, staff and students. However, there are several opportunities for AUC and UCDC to expand their relationships with community stakeholders and become an even greater component of a holistic community development strategy in the West End. The AUC and the UCDC could adopt some of the

previous efforts by Howard University to help revitalize Le Droit Park, a historic, neighboring African American neighborhood in Washington D.C. (AngelouEconomics, 2007, P. 11). Howard University's award winning economic development plan included moving several university entities (e.g., bookstore and alumni office) to vacant buildings along the business district's main commercial corridor, hiring a community liaison, and engaging the community for input on planned improvements to the neighborhood. (Blakely & Leigh, 2010, P. 251 – 252) (AngelouEconomics, 2007, P. 10 – 11) By adopting some of these strategies, the AUC and UCDC could help make the West End a better live, work, play and (learn) destination for their faculty, staff, and students (as well as community residents).

Furthermore, the West End's unique historic housing district, live/work loft warehouse conversion opportunities, and TOD possibilities makes the community a natural destination for students, staff, and faculty looking for nearby residential housing that is close to the interstate, Northside Drive and MARTA. A diverse housing community and commercial district close to the AUC could be attractive to recent college graduates as well as a useful tool for AUC schools looking to recruit and retain top academic and administrative talent.

Historic Fire Station #7

Basic GIS analysis was performed considering the shortest time in which a fire truck can reach the West End study area. Analysis about the number of stations that are within 4 minutes from West End area was performed. The analysis showed that the first fire truck can reach the West End area within 2 minutes. Additionally, the studio found that 2 to 3 stations could respond to West End area within 4 minutes. However, we did not have historic data about the fire incidents in the area and the capacity of nearby fire stations. Analyzing the historic data and the capacity data for nearby fire stations would make the situation more clear in two aspects: 1) what is the actual need, and 2) whether nearby stations actually have the capacity to serve the area. If the coverage and emergency response times are found to be sufficient (with existing fire stations surrounding community), there may be a possibility of repurposing the firehouse as a historic asset site for alternative community-focused or economic development uses.

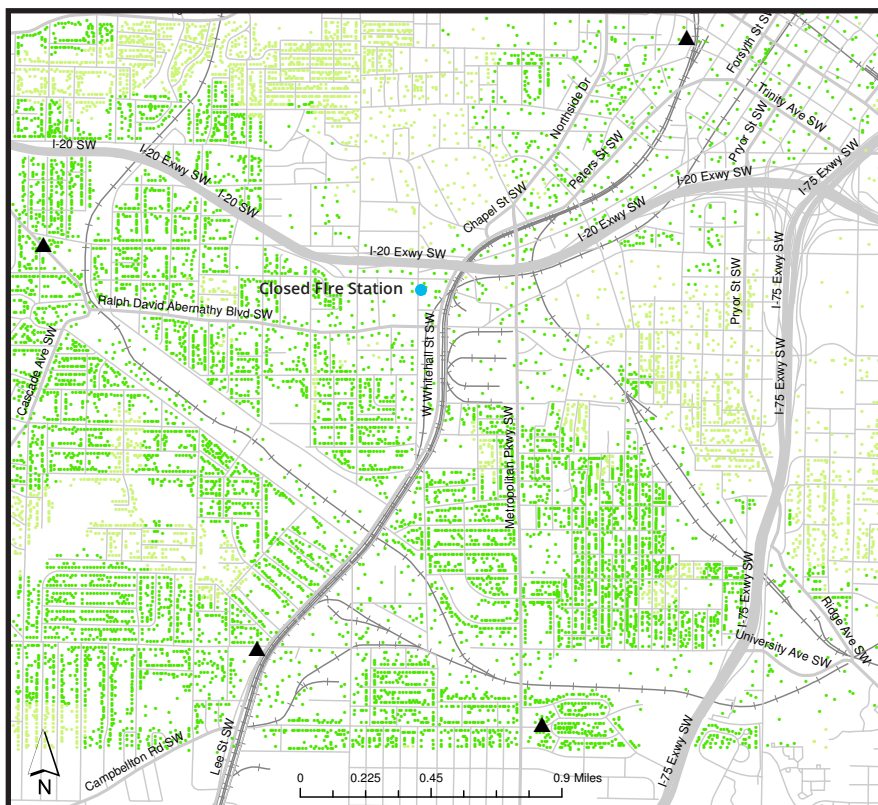


Figure 33: Fire Response Time During Peak Travel Time around Historic Fire Station #7

An Overview of the Proposed West End Community Improvement District

In an effort to take an active role in fostering a more vibrant commercial business district, the West End Merchant's Coalition, the University Community Development Corporation and other stakeholders are in the process of creating a Community Improvement District (CID) for the West End. A CID is public-private partnership where local governments authorize property owner members to impose voluntary self-taxes within a geographically defined area. This quasi-governmental entity is a key component of locality development, driving and advocating for revitalization by enhancing livability, promoting the business district, improving urban design, and creating a sense of "place" (i.e., defining an identity). Funding for the CID comes from a self-imposed additional ad valorem millage rate paid by commercial property owners (excluding residential property owners). While the Georgia Constitution prohibits a self-tax from exceeding 25 mills or 2.5% of assessed value of the property, most Georgia CIDs have set their millage rates between 3 - 5 mills. These additional mills of property taxes paid by members fund the CID's operations (e.g., administrative operations, projects, plans and programs).

One of the most important aspects of a CID is the ability for commercial property owners to take control of their business district's revitalization

and economic vitality. In a recent West End Merchant Coalition meeting, commercial business owners identified three main goals for improving the economic viability of the West End commercial business district: improving marketing/branding, changing outside public perception of the community, and addressing safety concerns. These three goals also represent the core activities of a CID and offer an opportunity for the merchants to begin making immediate improvements to the commercial district (e.g., security, advertising to outside communities, marketing and business district promotion programs). Lastly, the CID could also lead the way fostering a more competitive and cutting-edge business district by providing West End-specific commercial market surveys, reports and analysis.

In addition to the traditional CID activities, the revenue raised through the CID could serve to leverage, match and assist outside funding from local, state and federal agencies. In turn, the CID could serve as a catalyst for planning, supporting, and advocating for several of the proposed infrastructure and transportation improvements. These potential major projects include the Lee Street Bridge development, Lee Street and Ralph David Abernathy streetscape improvements, Ralph David Abernathy Boulevard underpass revitalization, wide-ranging marketing campaigns and updated neighborhood comprehensive plans (e.g., Livable Centers Initiative Plan).



Figure 34: Diagram of Possible CID Implemented Projects

Currently, the West End CID stakeholder group is refining their approach and determining the most optimal geographic target area for the proposed CID's boundaries. Initial target area corridors include Ralph David Abernathy Boulevard, Lee Street and White Street. In addition to the target area analysis, the group is also focusing on fulfilling two of the key requirements for owner written consent within the target area:

1. A majority of the owners of commercial real property (i.e. 50% + 1); and
2. The commercial real property owners that encompass 75% by value of real property value is reached.

Strengths, Weaknesses, Opportunities, & Threats (SWOT) Analysis

Strengths

- **Local Control.** CID allow commercial property owners to take control and improve the economic and aesthetic condition of the area surrounding their properties
- **Wide-Ranging Projects.** Funds collected through a CID could be used beyond administration and safety for numerous projects including: parks, public transportation, street and road construction and maintenance
- **Marketing and Branding.** A CID can help lay the foundation for creating an identity/ brand and commercial business market strategy for the West End, capitalizing on the community's unique history, location and placement on the National Register of Historic Places. For example, improving and coordinating signage, light poles, tree planting, street signals, etc.
- **Fostering Economic Development Planning and Programs.** The CID administrative structure (Board of Directors and day-to-day staff) leverage CID and outside grants

to implement cutting-edge economic development for planning and improvements

Weaknesses

- **Relatively Low CID Assessed Values:** The current proposed CID boundary has relatively low assessed values (est. \$32 million), which may increase the initial millage rates required to fund CID activities
- **Administrative Costs for Smaller CIDs.** Smaller CIDs often have a greater percentage of their expenses going to administrative costs compared to larger, more established CIDs. Administrative costs usually include marketing, capital improvement plans, CID advocacy strategies, and day-to-day operations, and may deter initial buy-in from commercial property owners (who may be turned off by administrative costs being such a large percentage of the CID's operating budget)

Opportunities

- **Leveraging Outside Funding.** A CID can serve as a local advocate for the commercial business district, working with local and county officials to ensure outside funding for project proposals (e.g., American Recovery and Investment Act, Georgia Transportation Enhancements grant, local and regional SPLOST (Special Purpose Local-Option Tax) for capital outlay projects). Additionally, the CID is the mechanism for local communities to access CID-specific or CID-friendly local, regional and federal funding
- **Leveraging the Beltline.** The Beltline Westside Trail offers an opportunity for the CID to connect its master plans and infrastructure improvements with a broader public/private entity. The result could be additional funding opportunities through the Beltline TAD, which is eligible for use in the West End commercial business district

- **Leveraging Existing Assets for Possible Grant Funding.** The initial proposed West End CID boundary includes high revenue generating franchises and chain stores. These business structures offer opportunities for their parent companies and franchisors to provide grant funding to support CID activities (e.g., streetscape improvements, lighting, sidewalk clean up, security) which directly benefit their chain stores and franchisees
- **CID as a Component of Holistic Community/Economic Development.** The West End CID has the opportunity to tailor some of its plans and programs to help encourage and foster sustainable economic development for the entire community. These strategies include partnering with local members and organizations to promote job training and youth services

Threats

- **Shrinking Pool of Outside Resources & Funding.** The pool for CID outside funding is shrinking due to growing number of Georgia CIDs vying for the same private as well as public regional, state and federal funds
- **Relatively Low CID Projected Revenue.** The initial projected revenue for the proposed CID is relatively low (est. \$165,000), which could potentially harm property owner buy-in as well as CID-funded projects during the first few years of operation
- **Potential for Isolation from Greater Community.** An important argument that must be considered when creating a CID is that there is the potential for this entity to create CID-specific plans and goals with little consideration for the needs of the entire West End community

CID Activities: Opportunities for Holistic Economic Development

The decades of disinvestment and lagging economic opportunities in the West End will most likely necessitate a comprehensive, holistic plan for community and economic revitalization. Holistic development strategies often require collaboration among the many diverse stakeholders that make-up a vibrant community. To accomplish this goal, neighborhood stakeholders within the education (primary through post-secondary), business, residential, community, cultural and political sectors will need to work together to craft a “blueprint” for equitable growth and development in the West End.

Understanding this need for multi-sector collaboration and comprehensive strategies, several CIDs in the Atlanta Metropolitan region have worked hand-in-hand with a neighborhood non-profit community development organization to create economically-diverse, thriving business districts. Many of these partnerships grew out of the realization that a CID’s activities impact more than just the businesses within the proposed boundaries and should be complementary to the greater community’s comprehensive plans and goals. For example, both the Atlanta Downtown Improvement District (ADID) and Midtown Improvement Districts (MID) were founded by and work in tandem with larger, non-profit organizations (Central Atlanta Progress and Midtown Alliance, respectively) whose boards are made up of local business, institutional, and community leaders. These organizations’ missions include a commitment to a wide-ranging strategies that incorporate culture, education, livability, as well as commerce. Further, both Central Atlanta Progress and Midtown Alliance helped create the master plans and provide day-to-day operations/ staffing for CID-funded programs and projects in their communities.



Figure 35: Radial Venn Diagram showing Cross-Sector Partnerships suggested for Holistic Economic Development & Proposed "West End Alliance"

Similarly, the West End has an opportunity to engage the strong network of existing local community, institutional and political organizations (e.g., WEND, NPU-T, AUCC, Council District #4) in creating a non-profit community development organization (e.g., the "West End Alliance"). While these overarching organizations (CAP and Midtown Alliance) existed decades before the implementation of a CID, there are still great lessons to be learned from a holistic partnership and community planning strategy. This cross-sector membership organization, along with the West End CID board, could develop and routinely update the master "blueprint" for the West End neighborhood, hopefully using this report as a resource. This long-term planning tool could provide the framework for future growth; focusing on livability, economic opportunities



Figure 36: Diagram shows the continuous relationship between the Proposed "West End Alliance" and West End CID

and holistic community development for all stakeholders. Once the blueprint for the West End is completed, the CID could serve as the "funding arm" to help fund and implement many of the blueprint's projects that drive sustainable economic growth within the business district. Finally, analogous to Midtown Alliance, the "West End Alliance" could also serve in a supporting role and provide diverse resources (e.g., research, staff, day-to-day operations, meeting spaces, offices, technical assistance) to help carry-out day-to-day CID-related activities. This partnership would be even more beneficial for the CID in its early years considering the need for the improvement district to run as efficiently as possible due to its relatively low initial annual revenue.

West End CID Proposed Boundary

The following is a spatial map of the West End Community Improvement District Proposed Boundary. The initial proposed boundary consists of 163 total parcels and 110 owners. Total assessed value for these parcels is roughly \$33 million, which equates to an estimated \$164,000 of total revenue at annual 5 millage property tax rate. Once the CID is birthed, the boundary could be expanded to include the entire business district (increasing its revenue) without having to go through the arduous consent process.

Proposed West End CID Budget

Based on the initial revenue projection and a proposed budget from a similarly sized CID (the Granville Business Improvement District in Milwaukee, Wisconsin), the studio has developed a sample budget for the proposed West End CID. The budget is intended to show how a similarly sized CID can still be relatively effective in carrying-out the core CID activities. The Granville Business Improvement District 2014 proposed operating plan can be found here: <http://www.granvillebusiness.org/wp-content/uploads/2013/05/OperatingPlan2014.pdf>

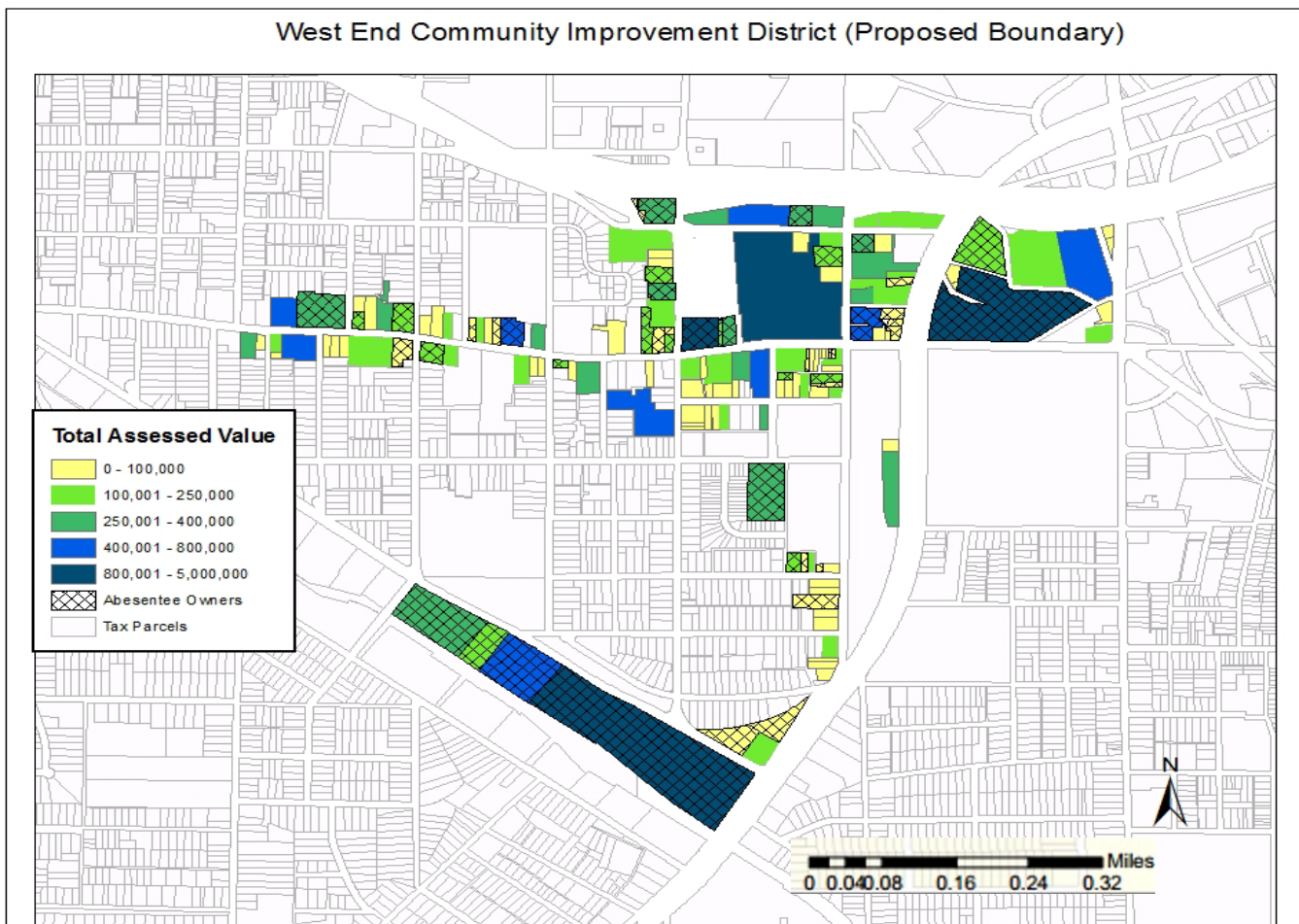


Figure 37: Proposed Map of West End CID and Initial Member Parcels

Furthermore, talks with CID experts and workgroups indicated that a successful CID must produce annual revenue greater than \$250,000 to survive. The issue, it appears, is that administrative costs below this threshold often take up a significant portion of the overall budget, sometimes reaching close to 50%. Thus, the studio sought to explore possible methods for “floating” the West End CID’s administrative costs through community partnerships. The studio estimated that \$85,000 annually would need to be sought for 3 years administrative costs or roughly \$250,000.

The following list is a small menu of potential West End CID grant funding opportunities. The idea is that many of these partners may have

a vested interest in CID-specific activities and projects that directly benefit their mission, goals, or local assets.

- Foundations (e.g., Community Foundation of Greater Atlanta)
- Financial Institutions (e.g., Bank CDCs and local institutions within the CID boundary)
- State Institutions (e.g., DCA CDBG funding)
- National Chain Stores and Franchisors (e.g, funds supporting high revenue grossing local chains and franchisees)

The sample budget below is based on receiving this \$85,000 annual grant funding.

Category/Item	Budget
Beautification and Identity	\$50,000
Neighborhood clean-ups, signage and boulevard enhancement (e.g., trees, perennial plants)	
Community Outreach Initiatives	\$16,000
Work with police, property managers, businesses, and residents	
Economic Retention/Expansion/Growth	\$40,000
Working directly with partners and businesses; workforce development with local community organizations; education to foster retention, expansion, increased economic opportunities for residents, and business district growth	
Marketing and Promotion	\$50,000
Development and implementation of activities to increase awareness of the positive attributes and opportunities in the district. Includes public relations, advertising collaboration, marketing materials, newsletters, surveys and special events.	
Administration and Management	\$80,000
Management services: Oversight, member communication, administrative support, annual audit, office space/rental, liability insurance, memberships, office supplies, mailings, misc. etc.	
Total	\$236,000
Reserve	\$14,000
Assessments (5 mills)	\$164,974.00
Sponsorship/Fund Raising	\$85,026.00

Table 8: Sample Annual Budget for West End CID

Leveraging Revenue to Attract Outside Funding Opportunities

In recent years, Georgia CIDs have had a successful history of leveraging their existing funds to attract private as well as regional, state, and federal funds for large-scale projects. The CID serves as the driving force for developing planning studies, design proposals, and comprehensive analysis needed to attract these funding opportunities. Recent studies indicate the financial power of CIDs, finding that Georgia CIDs routinely produce a 10 to 1 return on investment (ROI) for every dollar collected (Lilburn CID).

Leveraging the ARC's LCI Program

An important step for realizing the studio's proposed initiative is an updated LCI (Livable Centers Initiative) implementation plan that serves as a roadmap for future growth and development. The CID could serve as a driving force for securing funding for this new LCI study and helping to implement proposed comprehensive strategies. The ARC allocated \$18 million in study funds for the years 2000 to 2017 (\$1 million annually). Since its inception in 1999, LCI has assisted 113 communities with approximately \$15 million in planning grants to devise strategies that reduce traffic congestion and improve air quality by better connecting homes, shops and workplaces.

In addition to the study funds, the ARC also approved an initial allocation of \$350 million for priority funding of transportation projects resulting from Livable Centers Initiative studies. Another \$150 million was approved for these projects in the 2030 RTP. The total commitment from the ARC for transportation projects resulting from completed LCI studies is \$500 million. So far, \$173 million has gone to help recipients build transportation projects that help them accomplish their goals.

Due to feedback received by the ARC, the ARC committed more than 40 percent of

2012 LCI study funds to support existing LCI communities. Then, in 2013, the ARC committed over 60 percent of LCI funds to existing LCI communities. The ARC recognized that additional assistance was needed to further the efforts of local governments and CIDs/non-profits in existing LCI areas. This is where an opportunity exists for the West End. For a community like West End that has already completed an LCI, the ARC provides the following additional resources:

After completing an LCI study and creating a vision, a community is eligible for an LCI Supplemental Study to develop further plans to help implement their overall vision. These funds are frequently used to focus on issues like access management, zoning changes and housing issues. Communities may also receive assistance through ARC's Community Choices program, which provides cities and counties with free technical assistance and resources to implement innovative policies and plans. Once a community has a plan in place and is ready to implement its vision, it can apply for LCI transportation funds to help it build the transportation projects necessary to bring the vision to life.

The LCI transportation capital grants provide both an incentive and an implementation tool for communities. The grants to date represent:

- \$500 million commitment for transportation projects through 2040.
- \$203 million programmed between FY 2003-2017 for design, right-of-way and construction projects.
- \$34 million of new LCI transportation projects announced in projects within scoping phase (not yet in TIP).
- \$24.2 million in LCI transportation project funds for MARTA station area improvements affecting 34 of 38 MARTA stations.

Midtown Improvement District Case Study

One example of how a CID uses funds to achieve its stated goals is the Midtown Improvement District (MID) (which works in support with Midtown Alliance). The MID provides a good example of some of the projects that can be accomplished through a CID and how a CID may leverage funds maximize its benefit to the community. Over the last 12 years, the MID has contributed over \$20 million to leverage more than \$400 million in public and private funding to:

Construct pedestrian and bicycle improvements

- Enhance transit accessibility and traffic flow
- Provide needed public park spaces, and
- Carry out other special projects

The following figure provides a snapshot of how Midtown Alliance breaks down this leveraging.

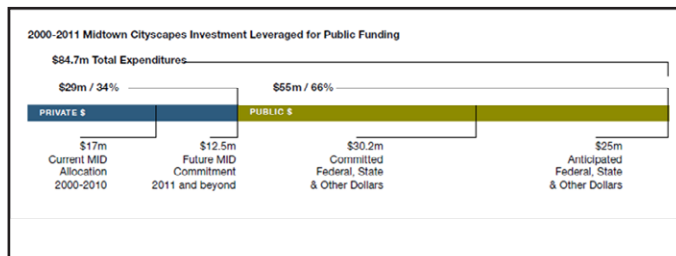


Figure 38: Midtown Cityscapes Investment Leveraged for Public Funding

Further, according to Midtown Alliance, “these investments have transformed Midtown’s major corridors with new sidewalks and bicycle facilities, decorative lighting, street trees, landscaping, improved crosswalks, and traffic signal management - all of which reinforce the district’s strong urban identity.” Additionally, “Midtown Alliance continues to implement capital improvements and sponsor special projects to maintain and enhance the district.”

Some of the projects Midtown Alliance has been able to facilitate since 2001 have resulted in:

- Over 14 miles of new sidewalks
- Approximately 4 miles of new planned and constructed bicycle facilities
- More than 700 new street and pedestrian lights
- Over 720 shade trees within public right of ways; and
- Three new public plazas along Atlanta’s signature corridor, Peachtree Street

The breakdown of these expenditures and expenses can be seen in the following figure.

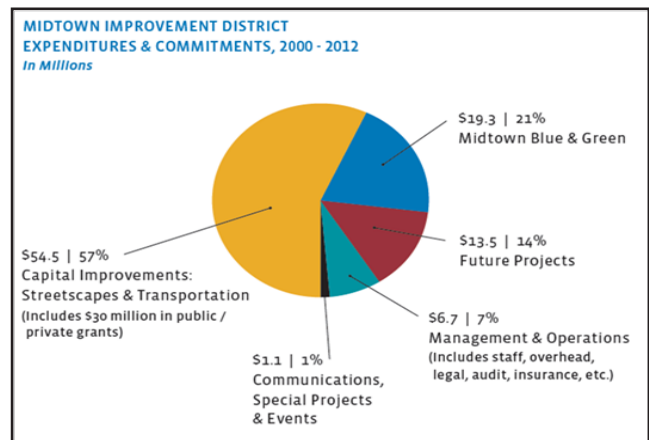


Figure 39: Midtown Improvement District Annual Expenditures and Expenses Breakdown

Some of the current projects that Midtown Alliance and MID are working on include:

- The 10th Street Cycle Track – a partnership between the City of Atlanta, the PATH Foundation, and Atlanta BeltLine, Inc.;
- Traffic Management Projects – including such things as traffic signal management, intersection improvements, wayfinding signage, and other strategic transportation improvements;
- Long-Range Planning – updating documents and communicating with residents regarding the long-term vision of Midtown;

- Traffic Operations Program – a partnership with the City of Atlanta and the Georgia Department of Transportation that seeks to implement a signal management program for almost 100 traffic signals in the Midtown area;
- Parks and Plazas – developing greenspace and pocket parks throughout the Midtown area; and
- Other Special Projects and Enhancements– such as routine maintenance, landscape management, transit stop improvements, sanitation management, public art, and various amenities and urbanism initiatives (like Little Free Library).

Implementation Schedule

The following hypothetical implementation schedule lists possible actions identified by the study process for moving forward on West End’s vision. It notes the action, next steps, responsible parties, possible funding sources, and a timeline. As it depends on a number of factors, the timeline is hypothetical and is provided here for the purpose of underscoring the reality that the various actions would happen over a number of years. Thus, the actions are not necessarily competing with each other for priority or funding, all suggested actions would be important in their proper timeframe, and the order in which

they occur could shift forward or backward depending on opportunity and need. Finally, the implementation schedule serves as a reminder that projects influenced by holistic community, economic and transportation development strategies do not happen overnight.

Economic Development Implementation Schedule

Proposed Projects and Next Steps	Responsible Parties	Notes	Duration (Months)	Timeline Range	
Economic Development			108	07/2014	07/2023
Community Improvement District			18	07/2014	12/2015
Identify Funding	CID Workgroup, West End Merchants Coalition		12	07/2014	07/2015
Creation of CID	Property Owners, City, CID Workgroup		6	01/2015	07/2015
Creation of West End Alliance	Various Community Representatives		12	07/2014	07/2015
Blueprint Comprehensive Plan	CID, WE		12	01/2015	12/2015
Rebranding Campaign	CID, WE		12	01/2015	12/2015
Incubator, Clinic, and Institutional Space (AUC, Morehouse Medical)			30	01/2015	12/2015
Revitalization of Business District			96	07/2015	07/2023
Phased Redevelopment of Mall at West End	Private Developers	Includes Three Phase Strategy	54	01/2016	07/2023
Façade Improvement Program	City, Invest Atlanta, BL		18	07/2015	12/2016
Housing and Community Development			36	07/2014	07/2017
Upgrade Multi-family Housing	Private Developers, DCA		24	07/2015	07/2017
Preserve, Enhance Historic District	Private Developers, CID, WEND		36	07/2014	07/2017
Assess Emerging TOD Residential Opportunity	MARTA, Private Developers, DCA		12	07/2014	07/2015

Transportation Implementation Schedule

Proposed Projects and Next Steps	Responsible Parties	Notes	Duration (Months)	Timeline Range
Transportation			90	07/2014 12/2029
Lee Street Redesign (AUC to Beltline (BL))			60	07/2014 07/2019
Seek Go-Ahead	GDOT, City, CID		18	07/2014 12/2015
Seek Funding Sources	GDOT, City, Beltline (BL), ARC, CID		54	07/2014 12/2018
Project Engineering	City, GDOT, CID	Phased Process	30	07/2015 12/2017
Environmental Impact Review	GDOT	Should result in a Finding of No Significant Impact (FONSI)	12	07/2016 07/2017
Construction	GDOT, City, BL, CID		30	01/2017 07/2019
Northside Drive Realignment			96	01/2014 12/2021
Seek Go-Ahead	GDOT, City, AUC, CID		18	01/2014 07/2015
Model Alternatives	GDOT, City, ARC		18	07/2014 12/2015
Seek Funding Sources	GDOT, City, ARC		36	01/2015 12/2017
Put in Transportation Improvement Plan (TIP) & Regional Transportation Plan (RTP)	ARC	ARC - TIP must be consistent with the RTP long-range plans (2040)	12	01/2015 12/2015
Project Engineering	GDOT, City	Phased Process	18	01/2016 07/2017
Environment	GDOT, City		18	01/2017 07/2018
Right-of-Way Easement	GDOT, City, AUC		18	01/2017 07/2018
Construction	GDOT		42	07/2018 12/2021
AUC Shuttle Improvement			18	07/2014 12/2015
Seek Go-Ahead	AUC, MARTA		6	07/2014 12/2014
Agree on Design	AUC, CID		6 to 12	07/2014 07/2015
Implement Project	AUC, CID		6	07/2015 12/2015
MARTA Station Improvements			42	07/2014 12/2017
Design for TOD & AUC	MARTA		6	07/2014 12/2014
Seek Funding Sources	MARTA, BL		12	07/2014 07/2015
Construction	MARTA		12	01/2015 12/2015
Explore Transit Hub	MARTA, Beltline, City, GRTA, CCT, FTA		42	07/2014 12/2017

Environmental, Land Use & Urban Design Implementation Schedule

Proposed Projects and Next Steps	Responsible Parties	Notes	Duration (Months)	Timeline Range	
Land Use/Urban Design/Zoning			162	07/2014	12/2027
Update LCI-Redefine Transit Oriented Development (TOD) Strategies			18	07/2014	12/2015
Amend Comprehensive Development Plan (CDP), Adjust Zoning			12	07/2015	07/2016
Lee Streetscape Maps - See Transportation Section			30	01/2015	07/2017
RDA Streetscape Extensions			30	01/2015	07/2017
Seek Go Ahead	City		12	01/2015	12/2015
Seek Funding Sources	City, ARC, CID		12	07/2015	07/2016
Design	City, CID		12	01/2016	12/2016
Bid & Construction	City, CID		12	07/2016	07/2017
Oak Street (Two-Way) Redesign			36	01/2025	12/2027
Streetscape with Transportation Section	CID, "West End Alliance" (WE), City		36	01/2025	12/2027
Environment/Parks/Brownfields			36	01/2025	12/2027
Assess Impact of Brownfields			12	07/2014	07/2015
Assess Impact of Brownfields on Strategies	City		12	07/2014	07/2015
Tree Planting Strategy			18	01/2016	07/2017
Establish Tree Planting Program (City)	City, WE, CID		6	01/2016	07/2016
Implement Program throughout Business District	WE, CID, City		12	07/2016	07/2017
Urban Design			78	07/2014	12/2020
Redesign Lee Street Streetscape			42	07/2014	12/2017
AUC to BL, emphasizing AUC to MARTA	CID, City, WE	Possible "Complete Street" Grant	30	07/2015	12/2017
Seek Funding Support	CID, City, WE		12	07/2014	07/2015
Seek GDOT & City Approvals	CID, WE, City, GDOT		12	07/2014	07/2015
Construction	CID, WE	Possibly in Phases if Necessary	30	07/2015	12/2017
RDA Streetscape			48	01/2017	12/2020
Extend to Underpass	City, CID, WE		12	01/2017	12/2017
Extend to Kroger Citi Center	City, CID, WE		24	01/2019	12/2020

Appendix



Appendix Table of Contents

Detailed Transportation Analysis.....	74
Modeling Transportation Alternatives.....	74
Case Study.....	87
Detailed Economic Development & Business District Revitalization Analysis.....	88
West End Educational Exploration.....	88
Case Studies.....	89
Proposed Redevelopment Plan Pro Forma Assumptions.....	101
Summary of Potential Stakeholders.....	108

Detailed Transportation Analysis

Modeling the Transportation Alternatives

Introduction

Building on the prospect of a new Northside Drive connection and possible alternatives to other West End transportation-related issues, this section considers a number of significant changes to the transportation network in and around West End study area. To better analyze these alternatives, the Atlanta Regional Commission's Travel Forecasting Model was used to help model the possible traffic impact on the road network in and around West End. Additionally, the model is also being used to estimate changes in ridership expected to occur as a result of adjustments to the AUC shuttle route to and from the West End MARTA station.

Three different scenarios were modeled: a base scenario holding the transportation system constant (except for those changes already recommended as part of all West End study area alternatives), a second scenario in which the highway on-ramp from Lee Street to I-20 eastbound is removed, and a third scenario in which the highway on-ramp from Lee Street to I-20 eastbound and the highway off-ramp from I-20 westbound to Lee Street are both removed. Further, the studio has identified uniform changes that are recommended for each of these alternatives. These changes are coded into all model scenarios and include making Oak Street two-way between Joseph Lowery Boulevard and West Whitehall Street, and reducing Lee Street to one lane in each direction between West Whitehall and the Morehouse College and Spelman College campuses (including the pedestrian bridge over I-20). Additionally, the proposed new Northside Drive alignment mentioned earlier is generally accepted as a preferred alternative, and as a result, is also coded into all model scenarios for the proposed alternatives.

Methodology

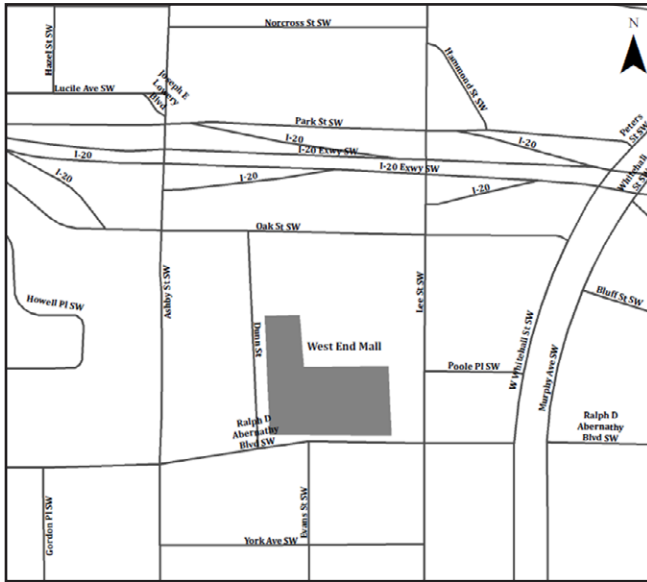
To learn about the effects of the proposed alternatives and to choose the most suitable alternatives, the travel demand model developed by Atlanta Regional Commission was used. Based on the proposed alternatives, the analysis was divided into two categories – Category 1 and Category 2. While Category 1 dealt with improvements in the highway network, Category 2 analyzed the alternatives for shuttle routes between the Atlanta University Center and the West End business district. Based on the timeline for the proposed projects, it was expected that all of the proposed changes should be completed by 2028. The year 2028 was chosen as the end point to help align with the ARC's input files which were prepared for the year 2040. Finally, the parameters, such as traffic volume, level of service on roads, and transit ridership, were used in evaluating these scenarios.

Category 1

Category 1 concentrated on the improvements in the road network. For the analysis three scenarios were compared – (1) Base or No build scenario; (2) Street improvements along with removal of a ramp from Lee Street to I-20; and (3) Street improvements along with removal of both ramps on Lee street, connecting it to I-20. These three scenarios were analyzed based on the parameters of analysis. Based on comparison of the results, the most suitable alternative for improvements in the road network was identified.

Base or Existing Conditions (Scenario 1)

This scenario provides the base for comparison of the proposed alternatives for improvements in the road network. ARC's model inputs for the year 2040 were used in this scenario. The inputs include the expected highway network for the year 2040, and the expected transit network for the year 2040 along with the projected



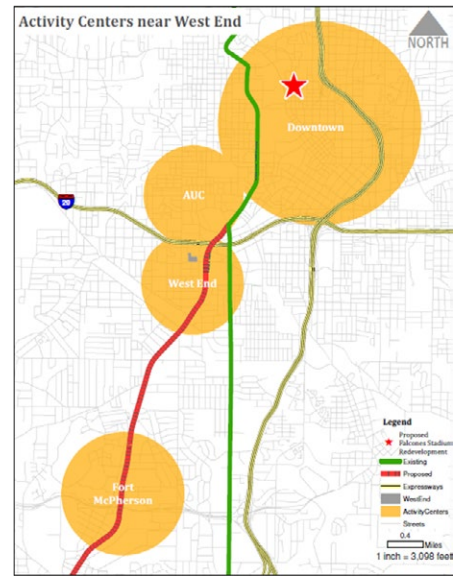
Base or Existing Conditions

socio-economic distribution for the year. The following figure shows the base scenario considered in this model.

Operationalizing Alternatives

After modeling the base scenario for the study, the next step was to operationalize the proposed alternatives. To complete this task, ARC's 2040 highway network in Cube was updated to reflect the proposed changes in the West End area.

Activity Center Linkages: During analysis of the area, it was observed that the area's connectivity can be improved by rerouting Northside Drive through the West End district. The following figure shows the possibility of connectivity of the West End activity center to neighboring activity centers through this improvement. This solution is expected to make way for the district as a future transportation and economic hub. For operationalizing this change, area near the triangular intersection area of Northside Drive with Metropolitan Drive and Peters Street was targeted. An attempt was made at realigning Chapel Street so that Northside Drive flows more naturally into West Whitehall Street. Peters Street and Westview Drive were modified



Activity Centers Around West End

so as to reduce the number of intersections on Northside Drive. Additionally, the updated connection between West Whitehall Street and Northside Drive was updated to have lanes and its overall structure compatible with Northside Drive. Other connections between the existing Northside Drive and Peters Street were also simplified.

Oak Street: To improve the access to the Mall at West End area, Oak Street was identified as an important component. Changing the existing layout of Oak Street (to a two-way street) to make it flow in either direction might improve the flow of traffic to and from the West End business district. Additionally, since Oak Street, along with Ralph David Abernathy Boulevard, is a major connector to Northside Drive, updating Oak Street might have stronger impact on improving traffic flow due to the realignment of Northside Drive.

Ralph David Abernathy Boulevard Improvements: RDA Boulevard is the major connection between the eastern sections of the City and the West End. This connection becomes more important due to the location of the area, as the metropolitan and other

eastern neighborhoods are separated from the West End neighborhood due to the rail freight lines. To increase the transportation experience and help attract residents from these neighboring communities, part of the studio's focus was to make the street more inviting and aesthetically pleasing for visitors and residents alike. A road tunnel (such as the one that greets travelers coming into the West End business district) could negatively impact the perception of the business district (both aesthetically and in terms of neighborhood security). Streetscape improvements for this street were proposed as a solution along with safety measures and a campaign to advocate the many existing assets within the area amidst the incoming proposed changes. However, the travel demand model cannot take these improvements as inputs, since it focuses on the more quantifiable parts of the alternatives. As a result, the model inputs did not change on account of suggested RDA Boulevard improvements.

AUC Linkages:

Lee Street Pedestrian Corridor: As the travel demand models do not estimate the pedestrian movements, the goal of operationalizing these alternatives would be to check if the corridor is conducive to a pedestrian environment. However, as the travel demand models also do not consider the changes in sidewalk infrastructure and other pedestrian infrastructure, the changes were restricted to the street and bridge improvement projects. The main change in this section was to update Lee Street so that it has one lane in each direction and one turn lane where drivers could turn on either side. Additionally, the studio recommended that heavy trucks be prohibited on this street to make it safer for pedestrians.

Lee Street Bridge: Alternatives regarding Lee Street Bridge were mainly explored to make the sidewalks more inviting for pedestrian movement. For this purpose, the studio recommended that the sidewalks on the bridge be expanded.

Moreover, barriers such as trees were added on the sides to better shield pedestrians from the sight and noise of the I-20 expressway and improve the overall walking experience on the bridge. To accomplish this goal, the number of driving lanes on the bridge were reduced. For operationalizing this solution, the bridge was assumed to have a lane in each direction and a turning lane in the middle.

I-20 Linkages: As identified in the problem statement, West End appears to be separated from the AUC campus via the interstate. Additionally, Northside Drive does not seem to have a good ingress and egress connection with I-20. To improve this scenario, the studio explored alternatives.

With Northside Drive: Initially, the studio explored adding ramps directly between I-20 and Northside Drive, done by replacing the existing ramps near Lee Street bridge. However, upon further review, the studio was concerned traffic problems such as vehicular weaving between drivers attempting to get on and off the freeway within close proximity of each other. A second problem was the availability of land for building adequate ramps to support on and off ramps from Northside Drive.

Additionally, the studio proposed that by providing a connection between I-20 and Northside Drive, the resulting access and



Northside Drive Realignment

connective might give better exposure to the West End business district. This might attract more people towards West End (and its existing assets) and improve the commercial appeal of the area. However, as this solution did not suggest any direct changes in the road network, it did not account for any updates to the ARC's highway network. Traffic between the base network and the updated network would be compared to check for this hypothesis. The following figure makes an attempt at showing the proposed Northside Drive alignment and expected traffic flows.

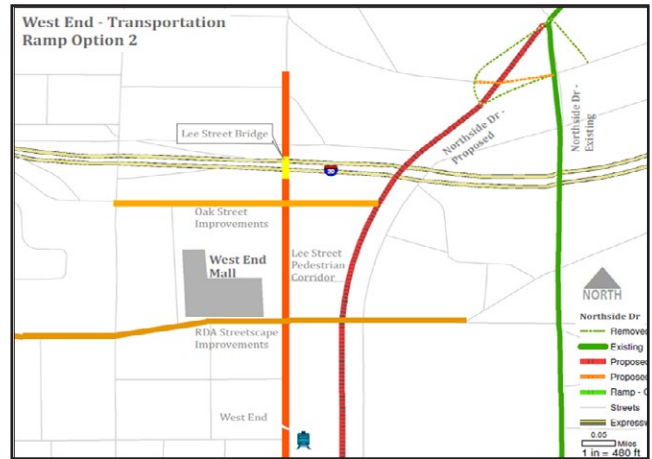
With West End: Currently, I-20 ramps are located near Lee Street as well as Lowery Street. Due to industrial areas and the Beltline being located to the south of West End, these ramps have the potential to transfer heavy automobile traffic along with trucks into the West End business district. Having heavy automobile and truck traffic can be detrimental to the perception of pedestrian safety along roads in and around the business district. As a result, these ramps were not observed to be compatible with the vision of developing a more pedestrian-friendly corridor between the AUC and the West End area.

Further, having ramps so close to each other presented an opportunity to improve the pedestrian environment on Lee Street. In addition to banning trucks on Lee Street, solution scenarios such as whether to remove one or both ramps between Lee Street and I-20 were explored. Based on these two options and other road network changes the following two scenarios were modeled.

Alternative 1: One Ramp

This scenario is designed to analyze an incremental approach at improving the pedestrian environment on Lee Street Corridor. It suggests the southern ramp near Lee Street to get onto I-20. Having a ramp near Lowery Street to get onto I-20, helps in making this solution feasible. This scenario also includes the updates made to Lee Street, Lee Street Bridge, Oak Street

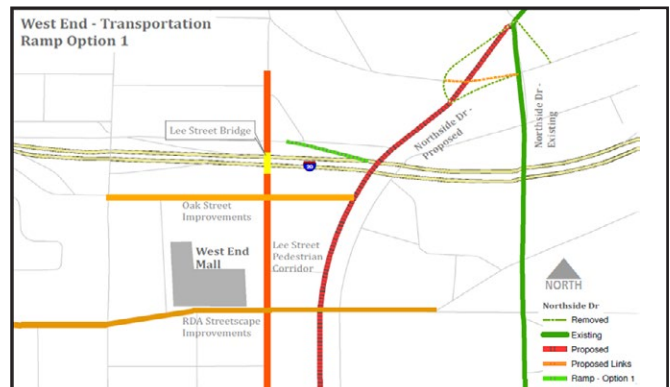
and Northside Drive. The following graphic shows the different alternatives covered in this scenario.



Alternative 2: Removing Both Ramps

Alternative 2: No Ramps

This scenario is the next step in the incremental analysis for improving the pedestrian environment on the Lee Street Corridor. These incremental steps provide the studio a way to compare these scenarios and compare their advantages as well as disadvantages. Due to the financial constraints associated with the transportation network upgrades, it becomes even more important to do such a comparative analysis and find a solution which serves proposed goals while simultaneously conserving resources. The second scenario suggests removing both I-20 ramps near Lee Street. It also includes updates made to Lee Street, Lee Street Bridge, Oak Street and Northside Drive. The following graphic shows the different alternatives covered in this scenario.



Alternative 1: Removing One Ramp

Category 2 - Comparison of AUC Shuttle Routes

After analyzing the area and the existing routes, a new route for the shuttle was proposed through this studio. Apart from connecting the West End Station with the AUC campus, this route also attempts to connect the MARTA Rail Stations on the northern edge of the AUC campus, namely – Ashby Station and Vine City Station. Connecting these three MARTA stations provides students with better opportunities to move around campus and connect with the city. The new route also attempts to take into account the traffic flows so as to make it easier for pedestrians to move around. This Category of analysis builds on the results of Category 1 to compare the shuttle routes. Category 1 alternatives used the existing shuttle route between AUC and West End MARTA station. Based on the road network nodes, the route between AUC and West End was appropriately updated. The preferred solution from Category 1 will be the base for this comparison. Essentially, the updated route will replace the existing route in the preferred solution, while keeping the rest of the parameters unchanged. This comparative analysis will lead to selecting the most suitable AUC shuttle route to improve connectivity between AUC and West End.

Parameters of Analysis

After running the models based on the scenarios established in this section, the outputs of these models were analyzed based on the several parameters listed below. These parameters were selected based on our goals for supporting a comprehensive pedestrian corridor such as – providing safer pedestrian environments, building perceptions while keeping the traffic flow in appropriate limits. The following is the list of parameters considered in this analysis.

Trip attributes: Our main goal for this studio is to help West End enhance its existing assets and achieve its potential. To analyze the attainment of this goal, it becomes important to examine

the trip attributes such as trips attracted to the West End area and also the way trips have been distributed over zones from this area. Although we did not change the socio-economic composition of the West End area input files, we wanted to see the effect of the transportation infrastructure improvements on these trip attributes.

Volume: The traffic volume is an important attribute in development of a pedestrian friendly design. Having large amounts of vehicles speeding past pedestrians does not merit great amount of confidence in the mind of pedestrians about the safety of such an environment. As a result, one of the goals of the transportation improvements was to lower traffic volume on Lee Street to promote pedestrian friendly environments. This also aligns with the economic development section's focus on making the West End area a "destination," where pedestrians are encouraged to take in the many cultural and economic components of this historic district. Subsequently, the results of the scenarios will be compared on basis of the traffic volumes on street sections in this corridor.

Truck volumes: As the southern part of this area includes the industrial areas along the Beltline, it becomes important to deal with the issue of truck volumes. Moving large trucks along pedestrian corridors would not be conducive to a good pedestrian environment, especially due to safety concerns. As a result, one of the goals of this project was to curb the truck traffic in the pedestrian corridor. These measures include prohibiting truck traffic on Lee Street and ramp system improvements. Although truck traffic was mainly generated on West Whitehall Street, this street eventually merges with Lee Street. This volume further signifies the importance of this parameter in the analysis. The outputs of the model estimate the truck counts for road segments based on the type of truck. These counts will be used in the analysis to compare the proposed scenarios.

Level of service: While the alternatives such as expanding sidewalks help improve the pedestrian environment; they also result in reducing road capacity. Such alternatives warrant a look at the resulting level of service. Even though the studio would like to develop these areas into pedestrian friendly environments, making the traffic flow efficiently is also important in maintaining a healthy business district. Thus, the road segment level of service in the area will be used to compare the scenarios. Level of service was also compared based on the time of day, specifically looking at both AM and PM time periods.

LOS	V/C
A	≤ 0.34
B	0.35 - 0.54
C	0.55 - 0.77
D	0.78 - 0.93
E	0.94 - 0.99
F	≥ 1.00

*Level of Service: From CEE
6622-Travel Demand Analysis,
Georgia Tech*

Ridership: The ridership variable would mainly be used to compare the Atlanta University Center Shuttle routes. Based on the Category 1 alternatives, the estimated ridership of the existing route in the preferred solution would be compared with the estimated ridership of the proposed route.

Vehicles Miles Traveled (VMT): Although the counts are very useful in analyzing each segment, summarizing it would not most likely not result in meaningful results due to duplication of data. VMT would be used to understand the summary of the models to compare the proposed scenario over various geographical extents.

Vehicle Hours Traveled (VHT): VHT measures the number of hours spent on the street segment. Aggregating it over larger area provides a way of comparing the alternatives based on their effect on vehicle delay.

Discussion

After running the Atlanta Regional Commission's travel demand model for scenarios discussed in the previous section, the results of these scenarios were compared using the set parameters. As the area consists of numerous of

road segments (network links), the analysis was aggregated on corridor levels such as – (1) Lee Street, (2) Lee Street bridge, (3) Oak Street, (4) Park Street, (5) RDA Boulevard and (6) Northside Drive, to make it easier to understand. Initially, the alternatives for the area were analyzed based on trip attributes for the area. The following subsections include the comparison of results for these corridors based on the appropriate parameters.

Trips Attributes

ARC's trip attraction model depends on variables such as connectivity to highways and to transit along with employment and employment type. In this part of the model, as the only changes were made in the network input files, the effect of change in accessibility due to network upgrades would be analyzed in this section. The West End area corresponds to the TAZ 1665. The following three tables show the trips attracted towards the area. From the trip attraction numbers across trip types such as shopping, work based, school, non-home based or others, the total trip attraction numbers seem to stay more or less the same. However, the distribution of these numbers varies depending on socio-economic strata based on the availability of cars, number of workers and their income for households. Attractions for trips without cars seem to remain the same. It was expected since the travel model does not take into account the pedestrian improvements. Additionally, trips for the category where the number of workers exceed the number of cars was observed to increase for the provided alternatives. A similar trend was also observed, since more cars are available than the number of workers with incomes below average. Interestingly, the attractions for higher income workers with a greater availability of cars were found to decrease across various trip types. The scenario with one ramp did not experience any major change in trip attraction, while the scenario where both ramps near Lee Street were removed did experience some amount of change. As the employment characteristics are expected to be higher for

the area after the proposed redevelopment, results of this comparison might end up underestimating the actual impact on the trip attractions. The results of this analysis might help in understanding the trend of change in the trip attractions due to the proposed alternatives.

Base				
A1	A2	A3	A4	total
486	485	703	579	2253
140	290	665	591	1686
13	26	63	60	162
295	643	1287	1310	3535
203	419	1029	935	2586
1137	1863	3747	3475	10222
<i>Trip Attractions for Base Scenario</i>				
Removing one ramp				
A1	A2	A3	A4	total
486	484	703	579	2252
140	290	665	591	1686
13	26	63	60	162
295	643	1287	1310	3535
203	419	1029	935	2586
1137	1862	3747	3475	10221
<i>Trip Attractions After Removing One Ramp</i>				
Removing one ramp				
A1	A2	A3	A4	total
486	484	703	579	2252
140	290	665	591	1686
13	26	63	60	162
295	643	1287	1310	3535
203	419	1029	935	2586
1137	1862	3747	3475	10221

Trip Attractions After Removing Both Ramps

Lee Street Corridor

The possible closure of the I-20 ramps, removal of lanes on Lee Street, and changes to the alignment of Northside Drive are expected to change traffic flows in the area. Use of the ARC's travel demand model allows all of these changes to be modeled at once, showing their likely impacts on traffic. Based on the way alternatives were operationalized for this corridor, the performance of the scenarios was compared on the following parameters:

Link	V/C			Volume			Truck		
	Base	One	None	Base	One	None	Base	One	None
2556-13097	0.16	0.14	0.00	2004	1958	1659	202	150	109
2556-15486	0.74	0.52	0.51	10516	3336	3143	1623	384	330
2765-15486	0.80	0.99	0.21	10559	7695	2659	1422	686	80
2765-15487	0.12	0.71	0.70	2593	4287	4388	268	490	433
13097-2556	0.14	0.00	0.00	3721	1114	1018	583	79	56
13097-15485	0.17	0.14	0.02	2062	2012	1749	204	152	113
15484-15485	0.15	0.01	0.01	3775	1168	1074	584	80	57
15485-13097	0.15	0.01	0.01	3775	1168	1074	584	80	57
15485-15484	0.17	0.14	0.02	2062	2012	1749	204	152	113
15486-2556	0.56	0.62	0.16	7126	4596	2157	824	364	65
15486-2765	0.81	0.71	0.70	11186	4287	4388	1656	490	433
15487-2765	0.93	0.99	0.21	13136	7695	2659	1518	686	80
15487-15488	0.27	0.43	0.33	4861	3671	2690	281	114	124
15488-15487	0.24	0.24	0.33	5042	2883	3321	297	124	137

Comparison of Traffic Flows on Lee St Segments

- Volume:** Most links on Lee Street observed a drop in volume when compared to the base scenario. On comparing the two proposed scenarios, it was observed that volumes on most links dropped slightly when both ramps were removed. Overall volume with ramp removal is dramatically decreased southbound on Lee Street, while volume increases somewhat in the northbound direction. The Lee Street segment on the bridge (going north) was a major exception, increasing in volume with removal of the ramps. As the ramps close down, some of the vehicles might be going north on the Lee Street Bridge in order to access I-20 via Park Street.

- **Truck Volume:** Truck volume observed a similar trend to the overall traffic volume on this corridor. It dropped significantly with removal of ramps. As only the heavy truck traffic was prohibited from these segments, the truck volumes show the estimated traffic counts of smaller commercial trucks. Similar to the total volumes, the north-going Lee Street Bridge segment observed an increase in the truck traffic as well.
- **Level of Service:** Compared to keeping both I-20 ramps, closing the southern ramp or both ramps increases volume-to-capacity ratios going northbound on Lee Street Bridge and into the Atlanta University Center, but generally decreases V/C ratios in the southbound direction. On links such as Lee Street Bridge segment going north, the level of service dropped from A to C because of the rise in volume and the lowering of its capacity due to the proposed alternatives..

Oak Street

Closing the ramps decreases eastbound V/C ratios on Oak Street near the West End Mall, but slightly increases the V/C ratio in the westbound direction. Total volume increases going westbound as well. On the portion of Oak Street connecting Lee Street and West Whitehall, removing both I-20 ramps decreases the eastbound V/C ratio, while removing only the ramp to I-20 East increases the eastbound V/C ratio.

Park Street

Removing one ramp increases morning V/C ratios along Park Street, while little change is seen from the base scenario in the morning when removing both ramps. Removing one ramp tends to improve V/C ratios in the afternoon, while V/C ratios in the afternoon when removing both ramps are not appreciably different from those keeping both ramps open. Overall volume along Park Street falls east of Lee Street when removing one or both ramps, while it mostly remains the same west of Lee Street.

Lowery Street/Ashby Street

The opposite effects are mostly seen on the Joseph A. Lowery underpass under I-20. Compared to keeping the ramps, closing them decreases volume-to-capacity ratios in the northbound direction, but

Link	V/C			Volume			Truck		
	Base	One	None	Base	One	None	Base	One	None
2558-2764	0.77	0.85	0.85	13907	15932	15822	2537	2605	2594
2558-15497	0.45	0.50	0.57	4053	4137	5208	663	768	806
2646-15496	0.24	0.43	0.43	5982	8637	8460	852	1329	1302
2764-2558	0.63	0.70	0.73	11006	11791	12854	2051	2370	2357
15496-2646	0.58	0.62	0.69	5216	5325	6357	832	944	976
15496-15497	0.18	0.37	0.38	4876	7552	7396	730	1211	1189
15497-2558	0.18	0.37	0.38	4876	7552	7396	730	1211	1189
15497-15496	0.45	0.50	0.57	4053	4137	5208	663	768	806

Comparison of Traffic Flow on Lowery Street Segments

increases V/C ratios in the southbound direction. Total volume with ramp removal drops by about a third in the northbound direction, and increases by about a third in the southbound direction. Southbound V/C ratios remain below 0.75 for all time periods, suggesting congestion would still not be a problem. Volume on Lowery north of I-20 remains largely unchanged.

The performance of the scenarios on Lowery Street segment near the Mall at West End was compared on the following parameters:

- **Volume:** On the link towards south, the volumes were observed to increase as the scenarios progressed (i.e., the highest volume was observed for solution with no ramps while lowest was observed for the base solution). While for the link going north, the volumes increased in the first solution scenario while the solution with no ramps observed a slight drop compared to the value for the solution with one ramp.
- **Truck Volume:** Truck volumes were found to increase for solution 1 on both directions, while an increase of lesser magnitude was observed for solution 2.

- **Level of Service:** Because of the restrictions imposed on Lee Street, much of its traffic share seemed to have transferred onto this street segment. As a result, on the link going north, the Volume by Capacity ratio of 0.77 increased to about 0.85 in the two solution scenarios. However, both of these values were in the range for level of service D (V/C in 0.77 to 0.94). Similar traits were observed in the link going south; with the difference being the level of service of this link was maintained as C throughout the three scenarios.
- **Time of Day:** The AM time periods observed an increase in V/C ratio from base scenario to Solution 1, while the links observed a decrease in the ratio from Solution 1 to Solution 2 in both directions. Additionally, a drop one level of service was observed for AM periods in both directions. On the other hand, the PM time periods observed the increase of V/C ratio from base to solution 1 and then to solution 2 in both directions.

Ralph David Abernathy Boulevard

Based on the way alternatives were operationalized for this corridor, the performance of the scenarios was compared on the following parameters:

- **Volume:** Many transportation links on the western section of RDA Boulevard did not experience major changes in volume with removal of the highway ramps. However, the ramps near the Mall at West End and West Whitehall Street did experience major changes. Segments south of the mall observed a big drop in volume in either direction. On the other hand segments near West Whitehall Street observed an increase in volume.
- **Truck Volume:** Truck volumes followed a trend similar to total traffic volumes with minor changes on most links (dropping volumes near the mall and increasing near the West Whitehall Street Junction with removal of

ramps).

- **Level of Service:** RDA did not experience major changes in the level of service. Segments near the Mall at West End did experience improvement in level of service from B to A. The rest of the segments maintained their level of service throughout the proposed changes.

	V/C			Volume			Truck		
	Base	One	None	Base	One	None	Base	One	None
2555	0.27	0.29	0.30	9729	10719	10954	1729	1733	1719
15022	0.25	0.29	0.28	7644	9737	9238	1366	1627	1551
2554	0.25	0.29	0.28	7644	9737	9238	1366	1627	1551
15327	0.39	0.41	0.47	13327	13503	14774	2236	2118	2272
2557	0.50	0.34	0.31	15244	12266	11158	2277	1577	1482
15327	0.49	0.49	0.47	14387	14945	13855	2415	2496	2348
2556	0.47	0.43	0.43	14419	12454	12294	2417	2305	2304
2558	0.44	0.32	0.32	13610	11849	11621	2348	1783	1730
2557	0.41	0.40	0.43	12633	11927	12665	2325	2358	2403
2644	0.34	0.30	0.25	11220	10839	9821	1552	1508	1341
2644	0.37	0.35	0.34	11823	11226	11221	1809	1748	1735
2648	0.32	0.29	0.26	10529	10234	9941	1484	1458	1407
2648	0.51	0.52	0.51	14937	15007	14879	2407	2472	2446
2558	0.42	0.40	0.38	12322	11644	11643	1952	1878	1866
2559	0.33	0.30	0.27	10674	10429	10133	1476	1458	1405
2559	0.37	0.35	0.34	11814	11210	11214	1838	1779	1768
2560	0.47	0.45	0.46	14314	14208	14160	2109	2068	2084
2-2554	0.27	0.29	0.30	9729	10719	10954	1729	1733	1719
7-2555	0.42	0.48	0.47	11934	13449	13241	2168	2391	2352
7-2556	0.54	0.41	0.43	16885	14338	14348	2699	1861	1846

Comparison of Traffic Flow on Ralph D. Abernathy Blvd Street Segments

Effect of Northside Drive update

There was a slight rise in traffic volume in transportation links near the intersection of Peter Street and West Whitehall Street. However, the segments near RDA Boulevard did experience a more significant change in volume. As this change in volume occurred near Oak Street, it can be inferred that some amount of vehicle traffic would take West Whitehall Street to I-20 via Oak Street. The West Whitehall Street southbound segment located near Ralph David Abernathy Boulevard experienced a drop in volume with removal of ramps. However, the links going north

experienced an increase in the volume. This change in volume further supports the traffic flow between I-20 and Northside Drive. Truck volumes followed the exact same trend for this street.

East of Lee Street and Oak Street, V/C ratios on the northbound portion of West Whitehall (as it becomes Northside Drive) are reduced slightly by removal of the I-20 ramps. Southbound volume-to-capacity ratios during the evening rush hour on the section of Northside Drive and West Whitehall just north of I-20 are above 1 in the base scenario, signifying congestion on these links; while these V/C ratios are reduced somewhat by removal of the ramps, they still remain above 1.



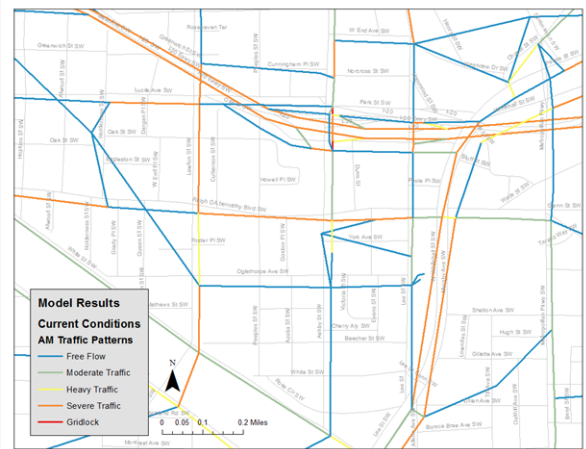
Improving Northside Drive - I-20 Connection by Adding a Frontage Road Between I-20 and Oak Street

Link	V/C			Volume			Truck		
	Base	One	None	Base	One	None	Base	One	None
15022-15023	0.47	0.46	0.45	19625	19861	19708	2832	2922	2878
15023-15022	0.48	0.48	0.47	18184	18307	18133	2925	2920	2898
15023-15306	0.47	0.46	0.45	19625	19861	19708	2832	2922	2878
15306-15023	0.48	0.48	0.47	18184	18307	18133	2925	2920	2898
15306-15324	0.67	0.64	0.64	16233	16148	16193	2403	2440	2422
15324-15306	0.75	0.74	0.74	16552	16694	16593	2631	2620	2611
15324-15334	0.67	0.64	0.64	16233	16148	16193	2403	2440	2422
15334-15324	0.75	0.74	0.74	16552	16694	16593	2631	2620	2611
15325-15326	0.70	0.72	0.74	20046	20704	21220	2934	3147	3264
15326-15325	0.48	0.49	0.49	22449	22053	22033	3395	3566	3599
15326-15327	0.77	0.75	0.71	23317	23107	21361	3524	3439	3298
15327-15326	0.68	0.73	0.73	21810	22784	23035	3315	3706	3737
15327-15484	0.77	0.76	0.74	20804	20407	18907	3164	3108	3016
15484-15327	0.76	0.73	0.73	20402	19428	19539	3167	3010	3035

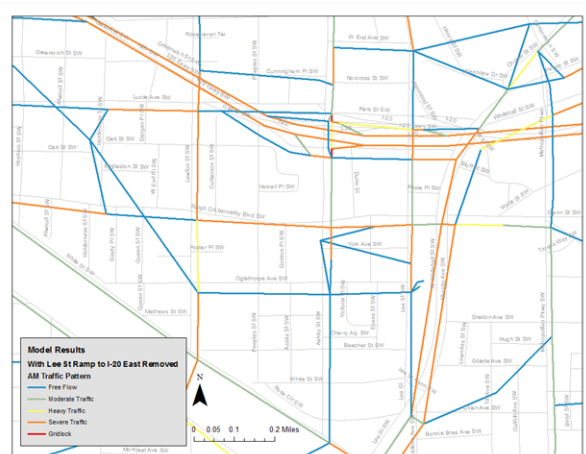
Comparison of Traffic Flow on Northside Drive Street Segments

Area	Base VMT	Change		
		One Ramp	No Ramp	
Northside Drive - Existing	VMT	583,437	-0.001%	0.077%
	VHT	39,628	-0.106%	0.066%
Northside Drive - Proposed	VMT	396,520	-1.017%	1.302%
	VHT	29,421	-0.010%	1.105%

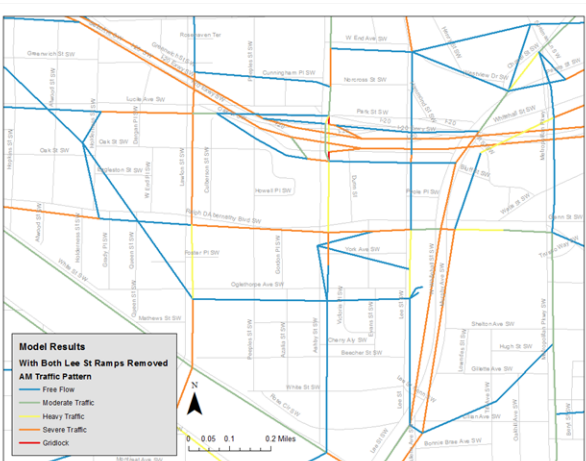
Summary Comparison of Northside Drive Realignment



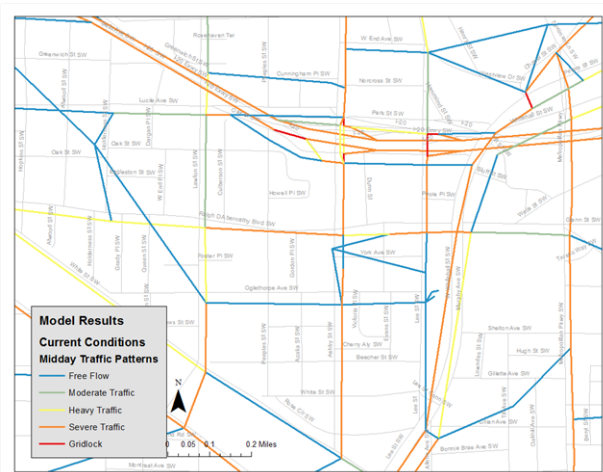
Base Scenario - AM Traffic Patterns



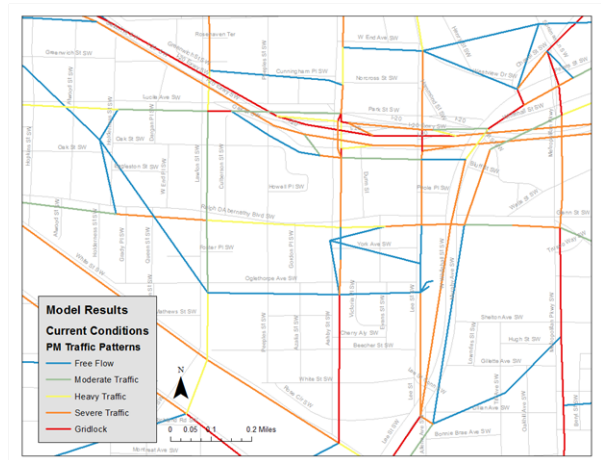
Scenario 1 - AM Traffic Patterns



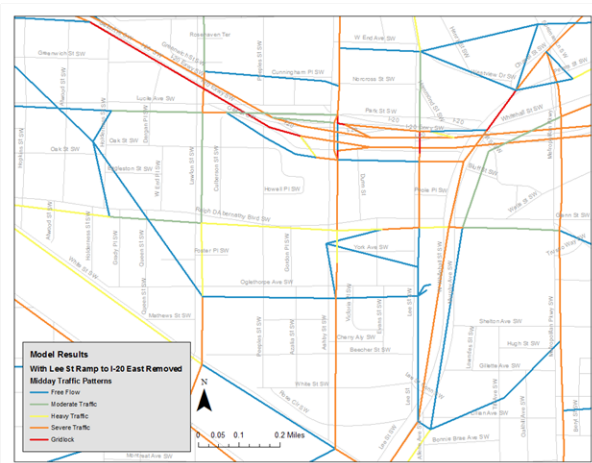
Scenario 2 - AM Traffic Patterns



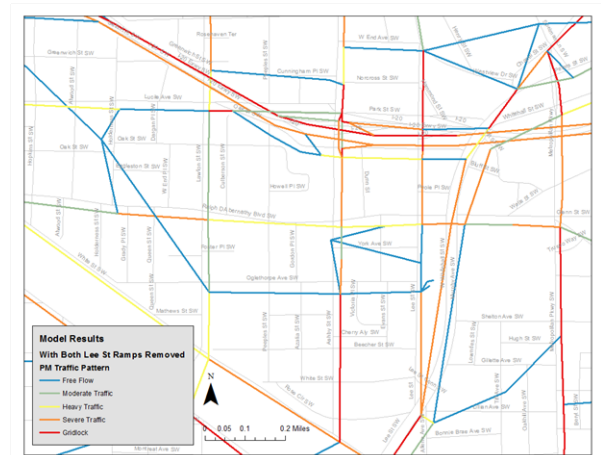
Base Scenario - Midday Traffic Patterns



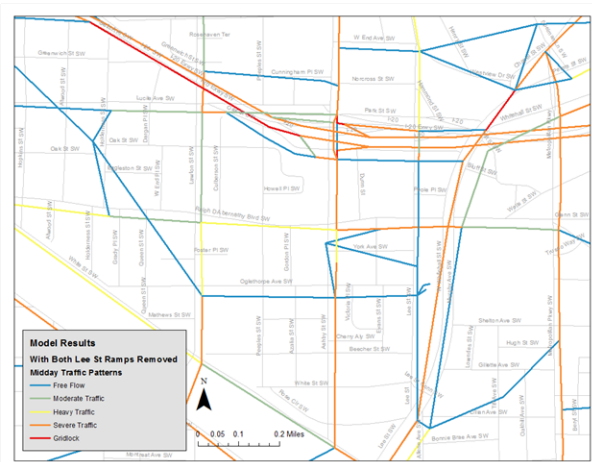
Base Scenario - PM Traffic Patterns



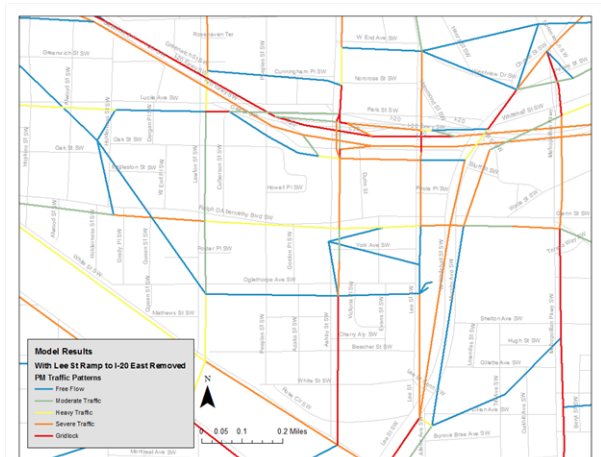
Scenario 1 - Midday Traffic Patterns



Scenario 1 - PM Traffic Patterns



Scenario 2 - Midday Traffic Patterns



Scenario 2 - PM Traffic Patterns

To understand the overall impact on traffic on Northside Drive after the realignment, summary traffic statistics were prepared for the two segments (table 9). For the proposed Northside Drive project, only the sections up to RDA Boulevard were chosen so the performance of the proposed realignment could be assessed. The aggregated statistics for the proposed segment did not particularly support our assumptions about increasing the flow to the West End area. However, this might be because of the possible redirection of traffic through Park and Oak Street towards I-20. Conceptually, the realignment was expected to increase connectivity with I-20, it might have resulted in decreasing the traffic in sections after the links with I-20 and resulted in an overall decrease. This decrease was sharper in case of the second scenario when both ramps were removed. As the connectivity with I-20 is relatively better in scenario 1 because of the presence of one of the ramps, it was expected that the second scenario should counter the effect of reduction in traffic on the proposed Northside Drive. Although it is not clear from the observation if realigning Northside Drive is actually attracting more people to West End, especially as the traffic on Northside Drive seems to be dropping as the connectivity to I-20 is worsened, the changing land use has not been taken into account while running the travel demand model. Since the structure and composition of West End are future changes, trip attractions to the area will change as well.

To study this issue further, the studio would need to run a scenario with the existing transportation network set-up, with the only change being the realignment. This would provide an opportunity to study the effects of the realignment irrespective of other proposed alternatives. This issue prompted the studio to look at another alternative: methods for improving connectivity

between Northside Drive and I-20 while trying to keep the pedestrian environment intact. Through this alternative, we would like to explore the possibility of adding a frontage road between Oak Street and I-20. As this road would connect Northside Drive with the I-20 ramps, overall connectivity of Northside Drive with I-20 might increase while shielding Oak Street from increased traffic. Additionally, this realignment might also help further enhance the pedestrian-friendly environment within West End. Finally, to better supplement the pedestrian experience, parking for retail stores on Oak Street can be moved towards the frontage road while moving retail stores closer to Oak Street. The result would be an environment that better encourages residents and visitors to stop, get out of their cars and take in the many sights and sounds of the historic West End.

Choosing the Alternative

Both of the proposed alternatives reduced traffic on the pedestrian corridors. These alternatives were also successful in decreasing the truck traffic volume on the pedestrian focused areas near the Mall at West End. Removing both ramps seemed to have a greater impact on traffic estimation among these road segments. The proposed alternatives for managing the road network supply also affected the level of service on road segments in the area.

Rerouting AUC Shuttle: To get an idea about how rerouting AUC shuttle affects ridership levels, another model was run by adding the new route to the preferred scenario – removing both ramps near Lee Street. Upon their comparison, it was found that the model estimated a 25% rise in ridership after rerouting the shuttle. Before concluding about advantages of the proposed solution, it becomes important to look at the assumption of the model. ARC's travel demand model does not differentiate between usual zones

and university specific areas. As a result, the model considers AUC shuttle as just another transit alternative and allocates riders to it. This effect is further amplified by the area being a dense and high transit use area. These factors along with lower fares for university shuttles result in a higher number of riders on these routes. As a result, we need to be careful about interpreting ridership estimates. However, as these conditions are the same for both route options, we might be able to get a general idea about ridership trends. Thus, the studio believes that rerouting the AUC shuttle to West End might help improve connectivity of West End to AUC campus.

Area	Variables	Base Value	Change	
			One Ramp	No Ramp
Important Streets in West End Area	VMT	139,352	-2.189%	3.650%
	VHT	7,350	-0.054%	3.605%
West End Activity Center	VMT	304,424	-1.193%	2.072%
	VHT	12,517	1.638%	0.807%
Atlanta Metro Area	VMT	236,153,338	0.005%	0.002%
	VHT	12,142,304	0.017%	0.002%

Summary Comparison of Solution Scenarios

Conclusions

Vastness of outputs generated by the travel demand modeling process suggests that further study of these results might provide some other interesting alternatives for improving the area. While interpreting the results of travel demand models, we also need to be careful about assumptions that go into it. The major part of these alternatives was an attempt at creating a pedestrian-friendly environment in the West End district that helps the historic district achieve its economic potential. However, travel demand models generally do not model the flow of pedestrians. As a result, we would not be able to

directly analyze the impacts of improvements in pedestrian infrastructure.

To conclude, we believe that making changes in transportation infrastructure within West End might help make the neighborhood more pedestrian friendly. Model results support the hypothesis about the way traffic flow would change in the area. These changes were most visible within the Lee Street corridor. After analyzing the ramping system alternatives, removing both ramps – connecting I20-East with Park Street and I20-W with Oak Street – might be a preferable solution in helping to enhance the pedestrian experience along the Lee Street Corridor. Additionally, a simplified AUC shuttle route was estimated to pull in more riders than the existing route.

Further, realigning Northside Drive so that it flows more naturally into West End might provide a better connection between Northside Drive and I-20. It might bring in more traffic on to Oak Street and Park Street, while seeking a connection to I-20. Adding a frontage road between Oak Street and I-20 might also help address this problem, while providing a more direct access between I-20 and Northside Drive.

Transportation Case Study

5th Street Bridge Atlanta, Georgia

Stakeholders

Georgia Institute of Technology
Georgia Department of Transportation
City of Atlanta Department of Planning
Midtown Alliance
Ivan Allen College
Local Midtown Businesses and Corporations
Federal Highway Administration
Centergy
Technology Square

.....
Overview

To better connect the Georgia Institute of Technology campus and Midtown Atlanta, the 5th Street Bridge was proposed to create an enhanced pedestrian experience. The bridge was to offer a seamless connection between the campus and Midtown Atlanta that was original separated by the Downtown Connector. Ultimately the bridge created opportunities for new businesses and to create Tech Square which has arguable become the heart of the Georgia Tech campus.

.....
Critical Issues:

- Utilizing existing structures, how does Georgia Tech and Midtown Atlanta enhance pedestrian, bicycle, and transit friendly connectivity while creating opportunities for future investment?

.....
Initiatives:

- The original 4 lanes, at a total width of 48', was reduced to two automobile lanes and bicycle lanes.
- Sidewalk widths were increased from 8' to 24'
- A 125' wide (75' northbound, 50' southbound) of landscaped areas created an enhanced walking experience while establishing a visual and sound barrier to the Downtown Connector.
- A shuttle was established to connect the campus to Technology Square and the MARTA Midtown Station.
- Investment was placed into local retail, national chains, and commercial office space.

.....
Applicability to West End

- Reduction of automobile capacity to create a more pedestrian friendly environment.
- Improvement of street amenities (lighting, vegetation, etc.)
- Connection of the commercial center to the school.
- Provision for a shuttle service connecting transit, the commercial center, and the campus



5th Street Bridge Before Improvements
(Source: Aspire Magazine)



5th Street Bridge After Improvements
(Source: Georgia Institute of Technology)

Detailed Economic Development & Business District Revitalization Analysis

West End Education Exploration

Education

Despite the shrinking child population, residents under the age of 18 remain a significant population cohort in West End. Down 25% from 2010, children remain 20% of the local population. The area is currently served by M. Agnes Jones Elementary School, located north of I-20 and is not a central fixture to the West End community, with limited walkability as it is a better integrated with the Ashview Heights community. Students at M. Agnes Elementary perform well English, Reading and Social Studies when compared to the state average for the Georgia Competency Test Results. Where the school is challenged is in the subjects of Math and Science.

Brown Middle School, which serves and is located in the heart of the West End community, is similar in academic performance as Jones Elementary. While the students excel and are comparable to state averages in reading and the language arts, the students perform significantly below the state average in math in science.

Booker T. Washington High School, also located in the Ashview Heights community, demonstrates the culmination of the underperformance in the math and sciences subjects as they score significantly lower than the state average. The performance trend of students from grade school through high school demonstrates that the students are not acquiring the appropriate foundation in math and science as their performance on state exams continues to decline. This could present tremendous opportunities for the schools, given their proximity, to partner with the Atlanta University Center for mentoring and tutoring to improve academic performance and ultimately their potential for higher education.

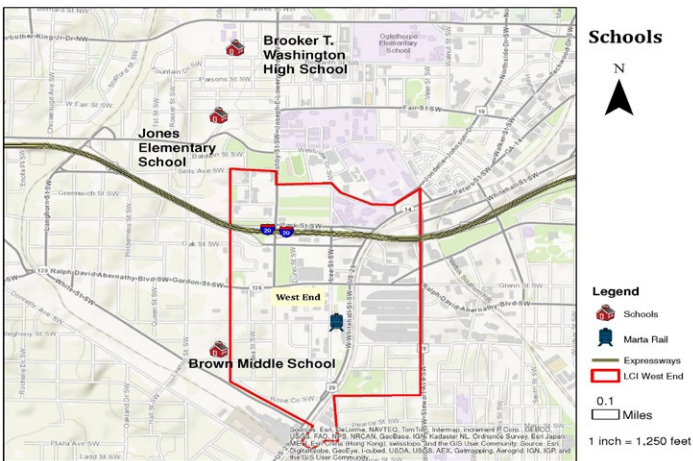


Figure 1.7- Schools That Serve the West End Community

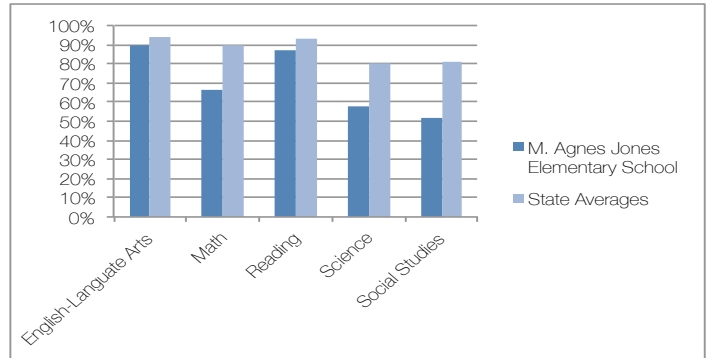


Figure 1.8 - Academic Performance of M. Agnes Jones Elementary School (5th Grade Only - Source: Great Schools)

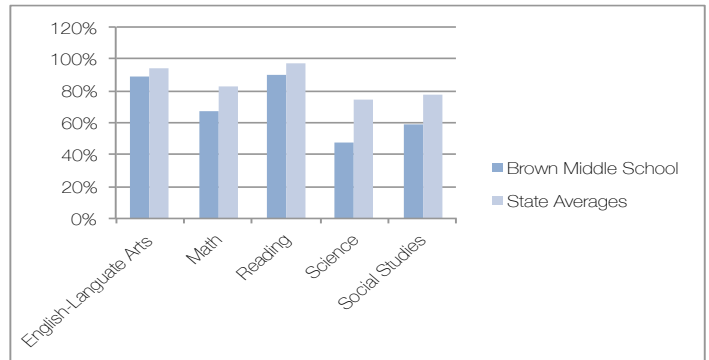


Figure 1.9- Academic Performance of Brown Middle School (8th Grade Only - Source: Great Schools)

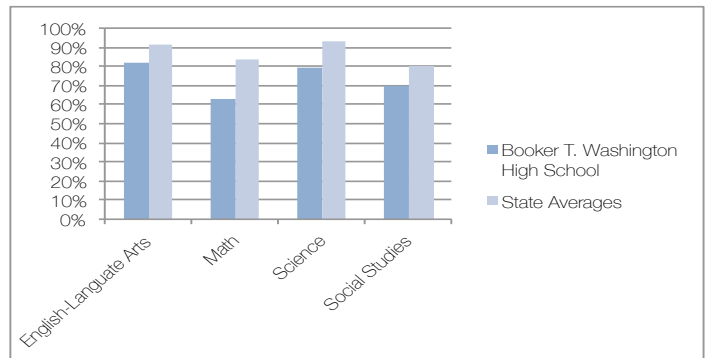


Figure 2.0 - Academic Performance of Booker T. Washington High School (11th Grade Only - Source: Great Schools)

Incubator Case Study

What is incubator space?

Incubator space is a building or development subdivided into small spaces to house startups and small, growing companies. Incubator space can be shared space, where businesses and entrepreneurs use the same offices, clerical and meeting room space. It can also be single occupancy small office space for a company that is more mature, but is still relatively small.

People wishing to use the space submit an application and sometimes a small fee to the entity that owns or runs the space, (ex. university, local or state government, nonprofit). One approved, the company or individual pays a recurring monthly or yearly fee to lease the space.

Successful incubators do not simply provide cheap space. They must also offer support services, networking opportunities and business training.

How is it beneficial?

Incubator space is beneficial to entrepreneurs because it alleviates some of the financial stress of paying for rent, computers, internet and meeting space, freeing up their energy to create and develop a successful business. They also help entrepreneurs, especially those who did not go to business school, learn how to start and grow a business.

or spaces clinical trials. The West End Medical Center is also in this area, so medical-related incubator space makes sense. Research has shown that due to the aging of the Baby Boomers and the expansion of the Affordable Care Act, that there will be more future demand for primary, outpatient care facilities. West End has the potential to position itself as a district catering to medical services and related industries.

With the proximity of the Clark Atlanta Business Program, West End could also house a more general incubator, which would look more like

What are some examples of incubator space?

Stanford

StartX is exclusive for companies founded by Stanford students. Because of this narrow focus, they are able to tailor programs and target funding specifically for their students.

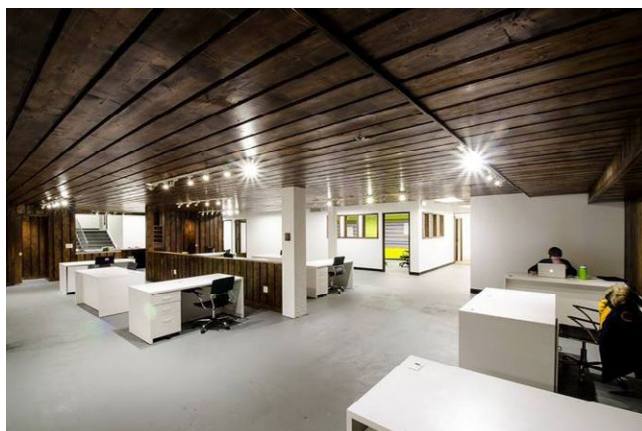


Stanford old StartX Space

StartX supports a broad range of companies and claims to be industry non-specific. They will soon be moving into a new 12,000 SF space within walking distance of the university.

University of Colorado -Boulder

SPARK Boulder is a student and alumni led initiative to have incubator space at the university. The 4,500SF facility is open to students and community members, though students get a discounted rate.



University of Colorado-Boulder and Spark Boulder Space

Georgia Tech

The Advanced Technology Development Center (ATDC) is a startup incubator. MATDC is part of the Enterprise Innovation Institute at Georgia Tech. It is geared towards entrepreneurs all over Georgia. The ATDC only supports technology entrepreneurs. The ATDC supports both first time entrepreneurs and startups that are a little more established. ATDC Select is an offshoot, three-year incubator program for high potential technology companies.

Startups are able to lease seed space and Select companies are able to lease suite space in 42,000 square feet in Technology Square and 15,000 square feet of wet lab space on the Georgia Tech campus.



Wet Lab Space at Georgia Tech

Lancaster BLVD Transformation

Lancaster, California

Stakeholders

Lancaster Redevelopment Agency (LRA)
Local Merchants
Various Public/Private Partnerships

Overview

In order to improve the central business district of Lancaster, California the city used public investment and public/private partnerships to invest in the local merchants to create a sense of ownership to the community. Investing public money, the city initially made small changes to the street scape, and later investing in housing and civic amenities to create and thriving mixed use, pedestrian oriented district.

Critical Issues:

- The central business district of Lancaster had suffered from disinvestment due to suburban sprawl and a main street that was oriented for high speed automobile traffic.
- Recruiting new businesses and keeping existing was difficult due to competing suburban shopping centers.
- An abundance of unused parking space created an unfriendly pedestrian environment.
- Private investment was unlikely without public investment in civic functions and businesses to support the transformation.
- Residences were needed to enliven the district and support the commercial market.

Initiatives:

- The center lanes of the primary arterial were removed and converted to a flexible space for pedestrians, activities, and parking on an as needed basis.
- The parking was made to blend in with the surrounding environment
- Existing sidewalks were repaired and replaced while being enhanced with new materials such as brick pavers at crosswalks.
- New street lights made, street trees, and furniture a more inviting pedestrian space.
- To increase the livability and vibrancy of the community, a 13.5 acre park with amphitheater and athletic facilities was added.
- Following the completion of the artist housing, the city added a new museum of art and history.
- The city sold \$5.1 million in low income housing tax credits to reinvest into the improvements and civic amenities.

- Partnerships were established with several local financial institutions and larger businesses to assist in funding the improvements and establishing the fund for rehabilitating the commercial spaces.
- To establish a permanent resident base to support the revitalized commercial district, over 800 units were added or rehabilitated.
- Affordable housing was incorporated to enhance the art and culture of the community that the city was attempting to cultivate.
- During the street improvements the city appointed Block Captains (merchants) that would be responsible for disseminating information to fellow merchants, creating a sense of local ownership while ensuring that all merchants were aware of the changes and how they would be affected.
- A fund was established that would assist new merchants to rehab existing space and improve spaces for existing merchants, minimizing the financial impact on each business while enhancing the community.

The Numbers:

- \$11 million in street scape improvements (LRA)
- \$41 million in additional public investment (LRA)
- \$130 million in private investment
- Property values increased 9.5% (2011-2012)
- 800 Permanent Jobs
- 50 New businesses
- Sales tax revenue increased by 100%
- 44% increase in merchant revenue
- 20% reduction in water usage
- 110,000 square feet of rehabbed commercial space
- \$273 million in economic output

Source: LRA

Applicability to West End

- Improvement of pedestrian environment.
- Enhancement of local merchants and perception of community.
- Establishment of smaller changes that lead to much greater changes.
- Public/private partnerships.
- Improvement of existing commercial facilities.
- Re-branding the community was a central focus to change its image.



Conceptual Plan
(Source: Moule & Polyzoides Architects & Urbanists)



View at Night
(Source: Moule & Polyzoides Architects & Urbanists)

Mariposa District Denver, Colorado

Stakeholders

Denver Housing Authority (DHA)
City of Denver
Denver School District
Denver Department of Health
Local Art Organizations
Multiple Financial Institutions

Overview

To capitalize on its expanding light rail system, the City of Denver and a multitude of other stakeholders made a large scale investment to improve a struggling community while providing transit access to job centers. The project incorporated elements of education, public health, and job training in addition to the built improvements. Additionally, the project was invested heavily in community involvement and input.

Critical Issues:

- The low income district of Mariposa was in need of greater investment without driving away its existing residents through gentrification.
- In order to break the cycle of poverty issues of education and job training needed to be incorporated.
- To truly address the needs of the community, and not the perceived needs, the stakeholders needed to substantially involve the existing community.

Initiatives:

- Total housing units in the district will have increased from 270 to 800 by 2018.
- All existing low-income units were preserved and rehabilitated.
- Existing residents were closely involved for relocation and temporary housing locations during the rehabilitation.
- The local health department conducted a Health Impact Assessment (HIA) to determine the needs of the community.
- The analysis from the HIA resulted in the proposal of bicycle lanes, walking trails, and improved sidewalks to encourage physical activity.
- Partnerships were established with local educational institutions to promote healthy eating and physical activity recommendations and guidance.
- New buildings are anticipated to achieve LEED platinum ratings. Playgrounds, courtyards, parks, and green spaces will be dispersed throughout the development. Traffic calming will be a central fixture to each street.

- The city and DHA made use of existing educational institutions to provide new resources in health and education to existing and new residents.
- The inclusion of the local health department and education system transcended to all elements of the plan to provide a holistic approach to the physical environment and overall quality of life.
- Partnerships were established with a multitude of financial institutions to provide capital that would have proven to be more difficult to obtain.
- Over 120 community meetings involving the citizens of the community and other organizations to ensure that their concerns were heard and incorporated.
- The plan included a youth culinary training program and a youth media studio to provide community resources and career training.

Applicability to West End

- Extensive list of stakeholders, involving several public and private organizations in order to create a truly comprehensive plan.
- Focus on improving transportation infrastructure, particularly through transit, pedestrians, and bicycle.
- Preserved existing housing and affordability to prevent a complete gentrification of the community.
- Incorporated elements of education and health into all aspects of the plan.
- Extensive community involvement to ensure that the needs of the community were sufficiently met.

HDMT Healthy City Elements	Community Priority Issues	Plan Response
 Healthy Housing	HH.4: Healthy, quality housing Median Income is \$38,000 compared to \$55,000 citywide.	800 High Performance Units
 Sustainable Transportation	ST.2: Affordable, accessible public transportation options 67% of residents say transportation is an obstacle to employment.	Coordinated Shuttles
 Social Cohesion	SC.2: Promote personal safety Neighborhood crime rate is 15.2 per 1000 compared to 5.7 per 1000 citywide.	Active Streets + Open Space
 Environment	ES.3: Affordable, high-quality food access Only 13% have recommended servings of high fiber food.	New Community Garden
 Healthy Economy	HE.2: Increase jobs and equity in income and wealth 75% of residents are unemployed.	Job Training Space + Partners
 Public Infrastructure	PI.5: Park, open space, rec access 55% of residents are obese or overweight, 77% have high blood pressure.	Variety of Open Spaces

Planning Process
(Source: Mithun Architects and Planners)



Plan
(Source: Mithun Architects and Planners)



Section Through Typical Street
(Source: Mithun Architects and Planners)

Jackson Square Redevelopment Initiative Boston, Massachusetts

Stakeholders

Boston Redevelopment Authority
Jackson Coordinating Group
Massachusetts Bay Transit Authority
Boston Department of Housing and Community Development

Overview

The Boston Redevelopment Authority and the Jackson Coordinating Group wanted to better connect the City of Boston, Jamaica Plain, and Roxbury through redeveloping Jackson Square with affordable housing and access to employment centers. Additionally, the Jackson Coordinating Group wanted extensive involvement with the execution of the plan to ensure that all points of agreement were executed.

Critical Issues:

- How do the stakeholders ensure that the developed property is done according to the agreed upon plan and appropriately phased?
- Data and information needed to be obtained for every street and potential development opportunity.
- The stakeholders needed parcels belonging to the MBTA to ensure that the redeveloped area had optimal access to transit.
- The stakeholders wanted to ensure that community needs would be met.

Initiatives:

- Housing served as the focal point of the plan, by creating new affordable units near an existing MBTA station, that provided efficient access to employment centers and surrounding communities.
- Specific criteria was established for the building design and the overall design of the units to ensure that they met particular standards and served as adequate housing units.
- A street by street analysis was conducted to assess what improvements needed to be made to improve the overall walkability and bicycle capacity of the streets.
- A criteria was established that will be utilized for any new streets in the community to ensure that they are cohesive with the renovated street scapes.
- Improvements to streets included lighting, traffic calming, and improved surfaces.
- The first phase of the project (103) units was completed using a multitude of state tax credits and grant opportunities.

- The Jackson Coordinating Group and Boston Redevelopment Authority worked with the MBTA to have an electrical substation relocated to make available optimal land for transit accessible housing.
- JCG partnered with potential developers, while establishing a requirement that they are thoroughly involved in any design and planning process to ensure that the original plan is executed appropriately.
- JCG and the BRA established development phases to ensure that the parcels that represented the greatest opportunity for change were developed first.

Applicability to West End

- Usage of local and state tax credits and grant opportunities.
- The coordination between the development parties and the MBTA to have access to more desirable properties.
- The long term control of ensuring that the plan is executed appropriately and providing the fluidity to make necessary changes and circumstances change.
- The identification of priority development opportunities to ensure the greatest potential for change is accomplished.



Jackson Square
(Source: Google Earth)



Jackson Square Rendering
(Source: Boston Redevelopment Authority)

Pop Up Oakland Oakland, California

Stakeholders

Local Businesses
Commercial Property Owners/Managers (Peter Sullivan Associates)
Oakland Office of Economic & Workforce Development

Overview

Small business retailers are given the opportunity to locate to vacant spaces in a commercial district and provided 6 months free rent. The businesses “pop up” simultaneously with the goal of becoming a network of permanent, mutually supportive small businesses. Rather than requiring the upfront capital usually expected for small business launches, participating businesses could instead use start-up capital for tenant build-out, cooperative marketing, and inventory to help grow the business during the initial states of development. After six months, the retailers have the option to stay permanently and sign a long-term lease.

Critical Issues:

- How do you foster opportunities among independent local small businesses while simultaneously increasing investment in struggling retail districts?

Initiatives:

- The incubator approach has created an opportunity for businesses to decrease costs by establishing a network and community of shared resources and to avoid duplication in operating and start-up costs.
- The program has seen three of the first five businesses launch, sign long terms leases, and maintain their presence in the community.
- Initial grant of \$30,000 through the City of Oakland’s Tenant Improvement Program.
- Additionally the City of Oakland subsidizes approximately \$100,000 of free office space rent for one year (4,000 square feet of space at \$2 per square foot - \$8,000 rent per month).

Applicability to West End

- Public/private partnership to support a small business incubator and help revitalize struggling commercial districts (e.g. building relationships with property owners).
- The city’s redevelopment agency provides guidance in regards to permits, marketing, publicity, and grand opening.
- Implementing a pop up network of businesses rather than an individual store to foster pooling of resources and cooperative marketing.

- Small business ownership opportunities that lead to permanent leases for small businesses while filling vacant spaces with potential long-term retail tenants, and increasing retail options to meet the needs of local residents and surrounding communities.



Source: PopUp Hood Oakland

Decatur Station Renovation

Decatur, Georgia

Stakeholders

MARTA
City of Decatur

.....

Overview

To support the 1982 Decatur Town Center Plan, the MARTA Decatur station was renovated to better compliment the goals of the plan and to create a more fluid pedestrian environment. As central element to downtown Decatur, it was essential that the station did not create a physical or visual barrier within the square. Ultimately, the Decatur Station renovation resulted in arguably the largest single change, as part of several other smaller changes that has created one of the great neighborhoods of not only the Atlanta region, but the country as well.

.....

Critical Issues:

- How can a transit station be renovated or modified to be better integrated into the community and less of an obstruction?
 - How can a project of this scale be funded and coordinated?
 - Can a transit station serve a multitude of functions as the centerpiece of a community master plan?
-

Initiatives:

- Coordination was required between the Metropolitan Atlanta Rapid Transit Authority and the City of Decatur to ensure that the needs of both parties were adequately satisfied.
- The two parties used an outside consultant to produce the design, requiring extensive coordination to ensure that the vision shared by both parties was executed.
- The Atlanta Regional Commission provided a \$4.4 million grant to complete the design and the construction.
- The city spent over \$10 million in infrastructure improvements immediately surrounding the station.
- The station renovation was part of an even larger urban initiative that included reduced lane widths, widened sidewalks, more than 400 trees planted, upgraded street furnishings, and improved public art.
- The scale of the station was reduced to be more cohesive with Church Street and the surrounding businesses.
- Planters were removed to increase pedestrian traffic flow and improve sight lines around the station.
- A plaza over the station was established to extend the performance area and pedestrian gathering spaces.
- ADA accessibility was improved at both entrances.

Applicability to West End

- Streetscape improvements that created a better sense of community and improved the pedestrian environment.
- Renovation of the MARTA station that better integrated it into the community rather than serving as a barrier.
- Partnered with MARTA to complete the work
- Utilized grants (ARC) to assist in funding the work.



Church Street Entrance
(Source: FTA)

Evergreen Cooperatives Initiative Cleveland, Ohio

Stakeholders

Local Hospitals, Universities, and Government Offices
Regional Businesses
Public/Private Funding Partners
City of Cleveland Department of Economic Development

Overview

The Evergreen Cooperatives Initiative is a network of mutually supportive cooperatives that meet the sustainability and procurement needs of local Cleveland institutions while simultaneously offering employees and owners training in life skills, business operations, and cooperative ownership.

- Evergreen Cooperative Laundry provides affordable, green laundry service for local institutions.
- Ohio Cooperative Solar offers residential weatherization services. Additionally, they install, service, and maintain solar arrays on commercial buildings.
- Green City Growers Cooperative is a hydroponic food production greenhouse that provides sustainable, high-quality produce for local consumption.

Critical Issues:

- How do you create sustainable wealth-building prospects and living wage jobs in low-income communities characterized by long-term disinvestment, fleeing capital, and a lack of economic opportunities.

Initiatives:

- Evergreen Cooperative Laundry currently employs 21 people.
- Annual revenue of \$1.1 million.
- Washes approximately 2 million pounds of laundry per year.
- Green City Growers Cooperative currently employees 25 people, most of whom are from the surrounding area.
- The cooperative currently produces 65,000 heads of lettuce per week.
- Ohio Cooperative Solar has weatherized more than 200 homes and installed three large scale solar arrays.
- The cooperative has annual revenues of \$1.3 million
- Employs 25 workers.

• Evergreen Cooperative - Initial Capitalization of \$5.5 million

- Sources of Financing - \$5 million leveraged New Market Tax Credit
- \$1.3 million - U.S. Bank CDE
- \$1.4 million - Evergreen Cooperative Development Fund Loan
- \$1.5 million HUD 108 loan
- \$0.8 million Shorebank loan
- \$500,000 from non NMTC sources

• Ohio Cooperative Solar - Initial Capitalization of \$10 million

- \$3 million Federal Energy Tax Credit
- \$1 million syndicated sale of accelerated depreciation of renewable energy equipment
- \$4.5 million in longer term financing
- \$1.5 million Ohio Stimulus Fund
- \$3 million New Market Tax Credit Loan - Key Bank
- \$1.5 million 10 year loan from Evergreen Cooperative Development Fund

• Green City Growers Cooperative-Initial Capitalization of \$15 million

- Leveraged NMTC financing that will leave the cooperative with \$4 million in equity at the end of seven years
- \$8 million HUD Section 108 Loan
- \$2 million HUD Brownfield Economic Development Initiative grant
- \$1 million from the Evergreen Cooperative Development Fund

Applicability to West End

- Leverage the procurement needs with local institutions, hotels, and businesses.
- Creating a network of worker-owned, green cooperatives that offer ownership, life skill, and operational training opportunities.
- The opportunity to provide wealth building, living wage jobs, long-term workforce and ownership training, while meeting the sustainable and procurement needs of local institutions.

Source: evergreencooperatives.com



Green City Growers Cooperative
(Source: City of Cleveland)



Ohio Cooperative Solar
(Source: City of Cleveland)

Mall at West End Redevelopment Pro Forma Assumptions

Assumptions

In conducting this financial analysis, the studio made several assumptions based on the total block size, proposed urban design renderings, the current building's footprints, market analysis and previous real estate development work conducted by individual studio members. The following is a brief breakdown of the studio's major assumptions used to conduct the analysis:

Acquisition

Acquisition costs: Total acquisition costs were selected as the current appraised price for the current Mall at West End (land + improvements) according to the tax parcel information from the 2013 Fulton County Tax Assessor's data files (\$10,335,900).

Construction:

Square Footage Considerations: Square footage of the buildings, green space and sidewalks: The building square footage was based on studio architectural drawings, which provided suggested square footage for various land uses in relation to the total block size for the existing property.

Construction Costs: Construction costs were based on previous construction costs provided in a Fall 2013 report done by a graduate student team in professor David Haddow's Advanced Real Estate Methods class (where several studio members also participated).

Building Programming

The studio did not make any assumptions based on the total number of units for each building use (i.e., commercial, residential, and institutional). Instead, each phase has a percentage breakdown

for building programming based on the studio's market analysis. The YMCA health center was the only building that was listed as a specific use.

Remediation

The studio's redevelopment plan included removing the gas station on the corner of Oak Street and Lee Street. This removal also brings concerns of possible environmental contamination issues that must be addressed before new construction could occur. The studio assumed that remediation of the gas station would cost \$150,000.

Average Construction Cost (\$/sq ft)	
Building \$/Sq ft	\$ 90.00
Parking \$/ sq ft	\$ 40.00
Greenspace \$/sq ft	\$ 5.00
Sidewalks \$/sq ft	\$ 10.00
Pavement \$/sq ft	\$ 12.00
Sq ft/acre	43560

Table Average Construction Costs Based on Architectural Diagrams

Table: Phase I Construction Costs

Phase 1 Building Construction	Sq Ft/ floor	Floors	Total Sq Ft	Construction Costs
Building 1	20000	6	120000	\$ 10,800,000.00
Building 2	20000	6	120000	\$ 10,800,000.00
Building 3	25000	3	75000	\$ 6,750,000.00
Building 4	25000	3	75000	\$ 6,750,000.00
Parking	33000	4	132000	\$ 5,280,000.00
Total			522000	\$ 40,380,000.00

Phase 1 Sidewalks & Pavement	Length	Width	Sq Ft	Construction Costs
Sidewalks	1908	10	19080	\$ 190,800.00
Pavement	636	25	15900	\$ 190,800.00
Greenspace	66	66	4356	\$ 21,780.00
Total			39336	\$ 403,380.00

Total Construction Costs				\$ 40,783,380.00
---------------------------------	--	--	--	-------------------------

Phase II Construction Costs

Phase 2 Construction	Sq Ft/ floor	Floors	Total Sq Ft	Construction Costs	Matching Funds
YMCA	47000	1	47000	\$ 4,230,000.00	\$ 2,115,000.00

Phase 2 Sidewalks, Pavement, Greenspace	Length	Width	Sq Ft	Construction Costs
Greenspace	318	318	101,000	\$ 505,000.00
Sidewalks	1271	10	12,712	\$ 127,121.99
Pavement	953	25	23,835	\$ 286,024.47
Total Construction Costs				\$ 5,148,146.46

Phase III Construction Costs

Phase 3 Construction	Sq Ft/ floor	Floors	Total Sq Ft	Construction Costs
Building 1	38000	3	114000	\$ 10,260,000.00
Building 2	33000	3	99000	\$ 8,910,000.00
Parking	27000	2	54000	\$ 2,160,000.00
Total			267000	\$ 21,330,000.00
Phase 3 Sidewalks, Pavement, Green	Length	Width	Sq Ft	Construction Costs
Greenspace	66	66	4356	\$ 21,780.00
Sidewalks	1272	10	12720	\$ 127,200.00
Pavement	954	25	23850	\$ 286,200.00
Total				\$ 435,180.00
Total Construction Costs				\$ 21,765,180.00

Snapshot of Phase I, II, & III Construction Square Footage by Total Space Type

	Phase 1	Phase 2	Phase 3
Total Sq Ft (Building)	390,000	47,000	213,000
Total Sq Ft of Parking	132,000	0	54,000
Total Sq Ft (Greenspace)	4,356	101,000	4,356
Total Sq Ft (Sidewalks)	19,080	12,712	12,720
Total Sq Ft (Pavement)	15,900	23,835	23,850

Sources and Uses

Loan Calculations: While the actual loan for each phase varied according to total construction costs, each loan was based on an 80/20 debt-to-equity ratio (80% debt, 20% equity). Additionally, the loan amount was calculated using a 25-year fixed loan at a 7% annual interest rate.

Phase I Sources and Uses

Phase 1		Loan	
Uses		Loan Amount	\$ 41,015,424.00
Acquisition	\$ 10,335,900.00	Rate	7%
Construction Costs	\$ 40,783,380.00	Term	25
Remediation	\$ 150,000.00	Payment/month	(\$289,888.48)
Total	\$ 51,269,280.00	Payment/year	(\$3,478,661.81)
Sources			
Equity	\$ 10,253,856.00		
Debt	\$ 41,015,424.00		
Total	\$ 51,269,280.00		

Phase II Sources and Uses

Phase 2		Loan	
Sources		Loan Amount	\$3,033,146.46
Matching Funds	\$2,115,000.00	Rate	7%
Debt	\$3,033,146.46	Term	25
Total	\$5,148,146.46	Payment/month	(\$21,437.65)
		Payment/year	(\$257,251.78)
Uses			
Building Construction	\$4,230,000.00		
Sidewalks, Pavement, Greenspace	\$918,146.46		
Total	\$5,148,146.46		

Phase III Sources and Uses

Phase 3		Loan	
Uses		Loan Amount	\$ 17,572,144.00
Demolition	\$ 200,000.00	Rate	7%
Building Construction	\$ 21,330,000.00	Term	25
Sidewalks, Pavement, & Greenspace	\$ 435,180.00	Payment/month	(\$124,196.26)
Total	\$ 21,965,180.00	Payment/year	(\$1,490,355.10)
Sources			
Equity	\$ 4,393,036.00		
Debt	\$ 17,572,144.00		
Total	\$ 21,965,180.00		

Building Programing Breakdown

The studio identified an opportunity to incorporate residential (for sale), commercial and institutional space within the proposed multi-phase redevelopment project. The percentage of each

space use is listed below for phase I, II, & III development. Additionally, the total square foot and cost are also broken down by space use.

Phase I

Phase I Construction Breakdown (Building Space Uses)	% of Sq Ft	(Sq Ft)	Cost
Residential	15%	58,500	\$ 5,265,000.00
Commercial	45%	175,500	\$ 15,795,000.00
Institutional	40%	156,000	\$ 14,040,000.00
Total		390,000	\$ 35,100,000.00

Phase II

Phase II Construction Breakdown (Building Space Uses)	% of Sq Ft	Sq Ft	Cost
Residential	0%	0	\$ -
Commercial	0%	0	\$ -
Institutional (YMCA)	100%	47,000	\$ 4,230,000.00
Total		47,000	\$ 4,230,000.00

Phase III

Phase III Construction Breakdown (Building Space Uses)	% of Sq Ft	Sq Ft	Cost
Residential	25%	53,250	\$ 4,792,500.00
Commercial	50%	106,500	\$ 9,585,000.00
Institutional	30%	63,900	\$ 5,751,000.00
Total		223,650	\$ 20,128,500.00

Pro Forma Financial Assumptions

Residential: After looking at the current multi-family rental and condo market (both in the West End and the City of Atlanta) as well as for financial simplicity, the studio decided to build only market-rate, for sale residential units. The residential sales price is \$105.00 per square feet in Phase I and \$120.00 per square feet in Phase III (which accounts for an estimated 2%/year in inflation). Phase II will only include building the YMCA and would not be factored into this analysis.

Additionally, the estimated sale rate percentage for both Phase I & Phase III are as follows (with all units being sold by Year 3):

- Phase I (Year 1 – 40%; Year 2 – 50%; Year 3 – 10%)
- Phase III (Year 1 – 40%; Year 2 – 50%; Year 3 – 10%)

Commercial: The studio decided to leave the commercial as general use, rather than trying to define the type of commercial space that could be offered in the proposed space. Thus, an average commercial rent was selected at \$20.00 per square feet. The amount of rent received is based off of the percentage breakdown of commercial space per phase. We assumed a 30% vacancy in the first year and an 18% stabilized vacancy (varying between Phase II & Phase III).

Institutional: Institutional space was estimated to be \$15.00 per square feet. The rent per square feet was lower than the commercial space due to the estimated lower demand for comparative space. Additionally, this expected lower demand was also reflected in first year vacancy rates (20%). Finally, because the studio would be partnering with local colleges and universities (rather than business tenants), the stabilized vacancy rate was estimated to be lower than commercial rate (5%).

Phase I

Sale/Lease	Rents/sales price/sq ft	Phase 1	Rent/Month	Sale Proceeds
Residential (\$/sq ft)	\$105.00	\$6,142,500.00	\$ -	\$5,958,225.00
Commercial (Rent \$/Sq Ft/year)	\$20.00	\$3,510,000.00	\$292,500.00	\$ -
Institutional (Rent \$/Sq Ft/year)	\$15.00	\$2,340,000.00	\$195,000.00	\$ -

Phase II

Sale/Lease	Rents/sales price/sq ft	Phase 2	Rent/Month
YMCA	\$15.00	\$705,000.00	\$58,750.00

Phase III

Sale/Lease	Rents/sales price/sq ft	Phase 3	Rent/Month	Sale Proceeds
Residential (\$/sq ft)	\$120.61	\$6,422,588.74	\$-	\$6,229,911.08
Commercial (Rent \$/Sq Ft/year)	\$22.97	\$2,446,700.47	\$203,891.71	\$ -
Institutional (Rent \$/Sq Ft/year)	\$17.23	\$1,101,015.21	\$91,751.27	\$ -

Global (Phase I & III) Assumptions

Finally, the following assumptions were used to complete the pro forma analysis:

- Rents were adjusted at the end of every six years to account for inflation and rental increases
- Expenses are \$4 per square foot, adjusted for inflation
- Management fees are 4% of Effective Gross Income (EGI)

Year 8-12 Pro Forma Analysis

Cash Flows					
Year	8	9	10	11	12
Income					
Rent (Commercial)	\$ 6,763,557.74	\$ 6,763,557.74	\$ 6,763,557.74	\$ 6,763,557.74	\$ 6,763,557.74
Rent (Institutional)	\$ 3,978,920.06	\$ 3,978,920.06	\$ 3,978,920.06	\$ 3,978,920.06	\$ 3,978,920.06
Rent (YMCA)	\$ 705,000.00	\$ 705,000.00	\$ 841,806.87	\$ 841,806.87	\$ 841,806.87
Residential Sale	\$ 1,868,973.32	\$ 3,114,955.54	\$ 1,245,982.22	\$ -	\$ -
Gross Potential Income	\$ 13,316,451.12	\$ 14,562,433.34	\$ 12,830,266.88	\$ 11,584,284.67	\$ 11,584,284.67
Less Vacancy Allowance (Commercial)	\$ (1,690,889.43)	\$ (1,352,711.55)	\$ (1,217,440.39)	\$ (1,217,440.39)	\$ (1,217,440.39)
Less Vacancy Allowance (Institutional)	\$ (596,838.01)	\$ (596,838.01)	\$ (198,946.00)	\$ (198,946.00)	\$ (198,946.00)
Expected Gross Income	\$ 11,028,723.68	\$ 12,612,883.78	\$ 11,413,880.49	\$ 10,167,898.27	\$ 10,167,898.27
Expenses					
Operating Expenses (Commercial)	\$ 1,232,377.34	\$ 1,257,024.89	\$ 1,282,165.38	\$ 1,307,808.69	\$ 1,333,964.86
Operating Expenses (Institutional)	\$ 1,175,877.10	\$ 1,199,394.64	\$ 1,223,382.54	\$ 1,247,850.19	\$ 1,272,807.19
Management	\$ 441,148.95	\$ 504,515.35	\$ 456,555.22	\$ 406,715.93	\$ 406,715.93
Total Expenses	\$ 2,849,403.39	\$ 2,960,934.88	\$ 2,962,103.14	\$ 2,962,374.81	\$ 3,013,487.99
Net Operating Income (NOI)	\$ 8,179,320.29	\$ 9,651,948.90	\$ 8,451,777.35	\$ 7,205,523.46	\$ 7,154,410.28
Less: Debt Service	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)	(\$5,226,268.69)
Before Tax Cash Flow	\$ 2,953,051.60	\$ 4,425,680.21	\$ 3,225,508.65	\$ 1,979,254.77	\$ 1,928,141.59
Ratios					
Operating Expense	21%	20%	23%	26%	26%
Debt Coverage	1.57	1.85	1.62	1.38	1.37
Break Even Point	0.61	0.56	0.64	0.71	0.71
Free and Clear Return	10%	12%	11%	9%	9%
Cash-on-cash return	20%	30%	22%	14%	13%

Summary of Potential Stakeholders

Summary of Potential Stakeholders

Metropolitan Atlanta Rapid Transit Authority (MARTA)

Established in 1965, MARTA is the regional transit agency operating bus and rail service in the City of Atlanta, Fulton County, and DeKalb Counties. Additionally, the agency provides connecting service to Cobb, Gwinnett, and Clayton Counties. In September of 1982, the agency opened the West End rail station (MARTA, 2009). Since then, the agency has considered developing the surrounding area of the station as a transit-oriented development (TOD)

Georgia Regional Transportation Authority (GRTA)

Established by act of the Georgia State Legislature in 1999 (Georgia Regional Transportation Authority Act § 50-32-1), the Georgia Regional Transit Authority (GRTA) was issued with the task of improving "Georgia's mobility, air quality and land use practices" (Georgia Regional Transportation Authority, 2012). One means by which the organization attempts to accomplish this is through its commuter bus service, GRTA Xpress, a partnership between 12 metro Atlanta counties that provides 33 routes from suburban locales to the Downtown, Midtown, Buckhead, and Perimeter business districts (Georgia Regional Transportation Authority, 2013). While this program does not service the study area, there is interest to extend a GRTA Xpress line to the West End MARTA station.

Cobb Community Transit (CCT)

Cobb Community Transit (CCT), which began operating in 1989, is the second largest transit system in Georgia behind MARTA (Cobb County). The system currently consists solely of bus lines, some of which operate in cooperation with GRTA Xpress to bring passengers from suburban Cobb County to metropolitan Atlanta centers (Cobb County). As a result, there is also interest to extend a CCT-operated GRTA Xpress line to the West End MARTA station.

Atlanta Regional Commission

In 2001, the URS Corporation completed a Livable Communities Initiative grant study for the West End via funding from the Atlanta Regional Commission (ARC). Among other issues, the study looked at the possibility of a TOD in the area and found that necessary elements existed to make such a development a reality (City of Atlanta, 2001). It has come time to update this LCI study, and this studio is expected to produce this update.

HT Group, LLC

HT Group, LLC is the leasing agent for West End Mall, the commercial center of the proposed West End transit oriented development (HT Group).

Georgia Department of Transportation (GDOT)

Based on a previous studio completed by the City & Regional Planning, Architecture & Urban Design, and Transportation Engineering master's students at the Georgia Institute of Technology, recommendations were made to realign Northside Drive to service the West End community and MARTA station. The Georgia Department of Transportation exhibited interest in the initial findings of this studio and has since begin its own feasibility study. If Northside Drive were re-routed, CCT, MARTA, and GRTA Xpress buses could more efficiently serve the area and increase likelihood of a transit-oriented development occurring

City of Atlanta

The City of Atlanta is divided into 25 Neighborhood Planning Units (NPU), which are citizen advisory councils that make recommendations to the Mayor and City Council on zoning, land use, and other planning issues. The NPU system was established in 1974 to provide an opportunity for citizens to participate actively in the Comprehensive Development Plan, which is the city's vision for the next five, ten, and fifteen years. It is also used as a way for citizens to receive information concerning all functions of city government. The system enables citizens to express ideas and comment on city plans and proposals while assisting the city in developing plans that best meet the needs of their communities (City of Atlanta, 2014).

Neighborhood Planning Unit T

Neighborhood Planning Unit T (NPU-T) is a citizen advisory council in Southwest Atlanta that makes recommendations to the Mayor and City Council on zoning, land use, and other planning issues. NPU-T consists of seven Atlanta neighborhoods: Atlanta University Center, Ashview Heights, CollegeTown (formerly Harris Chiles), Just Us Neighbors, The Villages at Castleberry Hill, West End, and Westview (NPU-T, 2014).

NPU	Chairperson	Location	Date of Meeting	Planner	Zoning Contact
T	Claiborne White 1347 Beecher St. SW Atlanta, GA 30310 404-424-9931 chair@nputatlanta.org	KIPP Strive Academy 1444 Lucile Ave SW Atlanta, GA 30310	Second Wednesday 7:00pm	Brandy Crawford 404-330-6522 bcrawford@atltaga.gov	Mark Malaguerra 481 W Ontario Ave Atlanta, GA 30310 mark@nputatlanta.org

Figure 2.7 - NPU-T Contacts

Westside Communities Alliance

The Westside Communities Alliance is a communications network for communities west of the Connector to partner on issues of common concern. Launched jointly in 2011 by the neighborhoods of English Avenue and Vine City, and Georgia Tech's Westside Task Force, the Westside Communities Alliance works to build relationships between these constituencies. The Alliance seeks to serve as a nexus point for area communities and institutions to tackle local challenges and find points of unity. The Alliance also seeks to be a model for multi-institutional engaged scholarship and service for Atlanta, as well as a resource for communities in need of partners and expertise. Through an exchange of knowledge, innovative and effective projects, and by developing sustainable partnerships between their collaborators to assist the City with revitalization and development of Atlanta's West Side, the Alliance envisions strong, vibrant communities as the West Side's urban future (Westside Communities Alliance, 2013).

Atlanta University Center (AUC) Consortium

The AUC Consortium, Inc. is a nonprofit organization composed of Clark Atlanta University, Morehouse College, Morehouse School of Medicine, and Spelman College. It is considered to be the oldest and largest association of historically Black colleges and universities. The Consortium seeks to foster collaboration and leverage resources to offer services and programs that benefit its students and the surrounding communities (Atlanta University Center Consortium, 2013).

West End Merchants Coalition

Formed in 2006, The West End Merchants Coalition, Inc. is a nonprofit community business organization representing business throughout the 30310 zip code. Members of the West End Merchants Coalition (WEMC) assist in identifying issues that influence business, affect the community's economic viability, and the quality of life in the West End. Member meetings are held the last Thursday of every month (West End Merchants Coalition, Inc.).

West End Community Improvement District (WE-CID)

The proposed West End Community Improvement District (WE-CID) representing Historic West End Atlanta is a self-taxing district that will use additional property taxes from commercial and industrial property owners to augment local, state, and federal dollars for projects that improve the quality of life for residents, students, business owners, and visitors of the West End community and improve public infrastructure. At the helm of the WE-CID, community partners will lead the charge in promoting economic development, smart growth and safety within the district to promote a live, work, and play community (West End Community Improvement District, 2012).

H.J. Russell & Co.

Founded in 1952, H.J. Russell & Co are a development firm responsible for the SkyLofts development in West End. The brothers that run the company, Michael and H. Jerome Russell, have an expressed interest to continue development in the area and therefore could be considered stakeholders (Shaw, 2010).

West End Historic District

The West End Historic District received local, state, and national historic designations during an eight-year span in the 1990s, from 1991 to 1999 (City of Atlanta, 2001). The area represented in this district is largely residential, with Craftsman bungalow, Queen Anne, Colonial Revival, and Neoclassical Revival homes (National Park Service), and consists of Land Lots 117, 118, 139, 140 (City of Atlanta, 2014). The original 2001 ARC Livable Communities Initiative study was performed with a focus on this site.

Westview Community Organization

Founded in 1974, the Westview Community Organization (WCO) grew out of collaboration between street clubs in the area to deal with stormwater runoff and flooding issues. Since then, the WCO has grown to represent the Westview neighborhood, which borders West End to the northwest. The mission of the organization follows its motto: "Working together to make our neighborhood a better place to live – one that is beautiful, safe, and secure" (Westview Community Organization, 2014).

The Metropolitan

What once was a GMC wholesale truck and coach parts warehouse, has in recent years been transformed into a creative space for both residential and commercial purposes. The Metropolitan warehouses are located to the east of the Mall at West End, just beyond the MARTA and commercial rail tracks, and are currently home to such wide-ranging industries as metal workers and massage studios, painters and personal trainers, wood workers and ballroom dance studios, among others (The Metropolitan Business and Arts District).

URS Corporation

URS is an engineering, construction, and technical services firm that is headquartered in San Francisco, CA (URS Corporation, 2014). In 2001, the firm was hired to assist with the creation of the ARC's Livable Centers Initiative report. The firm aided in the urban design and transportation portion of the analysis in addition to drafting an Economic Development and Market Analysis as well as a Land Use and Quality of Life Analysis (City of Atlanta, 2001).

Council Member Clela Winslow

Clela Winslow has represented the City of Atlanta's Council District 4, of which the West End community is a part of, for over 16 years (Council Member Clela Winslow District 4). Her work experience also includes stints as the Housing Director for the Atlanta Urban League, the Neighborhood Planning Unit (NPU) Coordinator for the City of Atlanta Bureau of Planning, and a leader in the West End Neighborhood Development Organization (Atlanta City Council). Winslow contributed in the original TOD study funded by the Livable Communities Initiative and may show interest in the update to the LCI study as well.

Sustainable Atlanta

Sustainable Atlanta is a local nonprofit organization that seeks to assist communities in promoting social equity, environmental stewardship, and economic development. In January 2014, the organization announced that the Atlanta University Center would be one of three eater Atlanta EcoDistricts and suggested that the program would aid Spelman College and Clark Atlanta University in reducing their power bills 20 percent by 2015 (Gay, 2014).

Atlanta BeltLine Inc.

The Atlanta BeltLine is a multi-billion dollar project set to redevelop 22-miles of unused rail corridor encircling the City of Atlanta into a series of parks, trails, and eventually transit lines. The southwestern portion of the redevelopment borders the southern portion of the West End Historic District along White Street and also captures parts of the West End in the BeltLine Tax Allocation District (TAD), funding from which is allocated toward construction of the rail. The second phase of the West End Trail was opened to the public in June of 2010 (Atlanta BeltLine, 2010).

Atlanta Housing Authority

The Atlanta Housing Authority (AHA) is assigned the task of developing, acquiring, leasing, and operating housing for low-income individuals in the City of Atlanta. The AHA is the largest housing agency in Georgia, serving around 50,000 people (Atlanta Housing Authority, 2014). The Ashley Terrace at West End is an AHA gated community located on Lee Street, directly across from the West End MARTA station (Atlanta Housing Authority, 2014).

Atlanta Department of Public Works

The City of Atlanta's Department of Public Works consists of two offices: The Office of Solid Waste Services and the Office of Transportation. The mission of the Department is to deliver services to improve the City's infrastructure and ensure the public health, safety, and wellness of its citizens (City of Atlanta, 2014).

Atlanta Department of Planning and Community Development

The City of Atlanta's Department of Planning and Community Development is comprised of three main offices: The Office of Buildings, Office of Housing, and Office of Planning. The Department is currently conducting a cargo and freight study to develop policies that balance the needs of communities and freight movement (City of Atlanta, 2014). Semi-truck traffic is of major concern to the West End area, as it disincentives pedestrian traffic on the major thoroughfares surrounding the Mall at West End.

Atlanta Public Schools

Atlanta Public Schools: The Atlanta Public School (APS) system serves the West End Neighborhood with three schools: Brown Middle School, which is located in the immediate vicinity, and Jones Elementary as well as Booker T. Washington High Schools, which are found to the north of the area across Interstate 20 (Atlanta Public Schools). Current demographic patterns suggest that although the population is fairly static, children will comprise a larger percentage and affect current APS strategies.

References

Atlanta Land Trust Collaborative. (2014, 2 April). About Us. Retrieved from Atlanta Land Trust Collaborative: <http://www.atlantaltc.org/about-us/>

Barnes, Karl W., "Your Vision, Your Memory, Your Challenge: Preservation is Good for Your African American Neighborhood Revitalization." Reflections. Georgia African American Historic Preservation Network (September 2002). Retrieved from: http://georgiashpo.org/sites/uploads/hpd/pdf/Reflections/Reflections_Sept_2002.pdf

Beltline. Beltline Affordable Housing Targets. Retrieved from the Beltline: http://beltline.org/wp-content/uploads/2012/04/BeltLine-Affordable-Housing-Advisory-Board_2010-Annual-Briefing-Presentation.pdf

Brian E. Thomas, Community Land Trusts and the Impact on the Free Market (December 12, 2013). Paper for City and Regional Planning Community Development Class at Georgia Institute of Technology.

City of Atlanta, West End Historic District Livable Centers Initiative, June 2001. Retrieved from: <http://www.atlantaregional.com/File%20Library/Land%20Use/LCI/LCI%20Recipients/Atlanta/West%20End/Study.pdf>

Clark Atlanta University, http://www.sbus.cau.edu/fulltime_concentrations.html

Clark Atlanta University, Economic Development Center. "West End Revitalization Plan (1992).

Department of Community Affairs (DCA). 2014 Qualified Allocation Plan. Retrieved from DCA: http://www.dca.ga.gov/housing/HousingDevelopment/programs/documents/2014QualifiedAllocationPlan-forGovernorSignature_000.pdf

Fort Valley State University, <http://www.fvsu.edu/files/pdf/Academic-Assessment-Rural-Business-Outreach-2011-2012-Revised.pdf>

Georgia Incubators, <http://www.georgia.org/wp-content/uploads/2013/09/Georgia-Business-Incubators.pdf>

Immergluck, D. (2009). [Large Redevelopment Initiatives, Housing Values and Gentrification: The Case of the Atlanta Beltline.](#) *Urban Studies*, 46(8), 1725–1747.

Interview with Dan Immergluck, March 10, 2014. See also Jean L. Cummings and Denise DiPasquale, Building Affordable Rental Housing: An Analysis of the Low-Income Housing Tax Credit, City Research (1998). Retrieved from: www.cityresearch.com/lihtc/cr_lihtc.pdf.

Jean L. Cummings and Denise DiPasquale, Building Affordable Rental Housing: An Analysis of the Low-Income Housing Tax Credit, City Research (1998). Retrieved from: www.cityresearch.com/lihtc/cr_lihtc.pdf.

John Emmeus Davis, Shared Equity Homeownership: The Changing Landscape of Resale-Restricted, Owner-Occupied Housing, National Housing Institute (2006).

Kimura, Donna. "Georgia Updates QAP." Affordable Housing Finance. May 1, 2012. Retrieved from: <http://www.housingfinance.com/economic-development/georgia-updates-qap.aspx>

Pastel, S. J. (1990). Community Land Trusts: A Promising Alternative for Affordable Housing. *Journal of Land Use and Environmental Law*, 293.

<http://alumni.colorado.edu/2014/02/10/spark-boulder/>

<http://sparkboulder.com/>

http://usatoday30.usatoday.com/money/smallbusiness/columnist/strauss/2011-05-08-business-incubator_n.htm

<http://techcrunch.com/2012/09/06/startx-the-startup-accelerator-for-stanford-students-kicks-off-its-summer-2012-demo-day/>

<http://startx.stanford.edu/>

<http://www.atdc.org/>

<http://innovate.gatech.edu/programs/advanced-technology-development-center-atdc/>

<http://fci.northwestern.edu/resources/incubators.html>

<http://www.feld.com/wp/page/2>

http://www.msm.edu/research/research_centersandinstitutes/NCPC/research_cni_NCPC_overview.aspx

IT Career Finder. (n.d.). Help Desk Technician. Retrieved June 12, 2014, from <http://www.itcareerfinder.com/it-careers/help-desk-technician.html>

Jean L. Cummings and Denise DiPasquale, Building Affordable Rental Housing: An Analysis of the Low-Income Housing Tax Credit, City Research (1998). Retrieved from: www.cityresearch.com/lihtc/cr_lihtc.pdf.

Khalil, Noel (2014). "Columbia Residential – Neighborhood Transformation." Retrieved from National Association of Local Housing Finance Agencies: http://c.ymcdn.com/sites/www.nalhfa.org/resource/resmgr/2014_Conference/Noel_Khalil.pdf

Kimura, Donna. "Georgia Updates QAP." Affordable Housing Finance. May 1, 2012. Retrieved from: <http://www.housingfinance.com/economic-development/georgia-updates-qap.aspx>

Morehouse School of Medicine, http://www.msm.edu/research/research_centersandinstitutes.aspx

<http://www.bizjournals.com/sanfrancisco/news/2013/12/05/oakland-development-brewery-co-working.html?page=all>

Murphy, M. C., & Crystal, K. R. (2009). Redeveloping Former Gas Stations. Retrieved from Phillips Lytle: http://www.phillipslytle.com/include/uploads/ARTICLE-2009-12-01-Murphy_Crystal.pdf

Pastel, S. J. (1990). Community Land Trusts: A Promising Alternative for Affordable Housing. *Journal of Land Use and Environmental Law*, 293.

Wickert, D. (2014, April 2). Board hears Ferdinand complaint, dismisses others. *Atlanta Journal Constitution*. Retrieved from <http://www.ajc.com/news/news/local-govt-politics/board-hears-ferdinand-complaint-dismisses-others/nfQxD/Youngblood>, Mtamanika (2003). Beyond Gentrification: Roundtable of Experts. Retrieved from PBS: http://www.pbs.org/pov/flagwars/special_roundtable-my.php

Yoshitsugu, S. (2013, December 5). Oakland developer plans incubator for hardware start-ups. *San Francisco Business Times*. Retrieved from <http://www.bizjournals.com/sanfrancisco/news/2013/12/05/oakland-development-brewery-co-working.html?page=all>

ARGO

